

# A HUNDRED YEARS OF PHILOSOPHY

FROM THE

SLATER & WALSH COLLECTIONS

The Thomas Fisher Rare Book Library, University of Toronto







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exhibition and catalogue by

John G. Slater and F. Michael Walsh

The Thomas Fisher Rare Book Library, University of Toronto

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## PREFACE

This exhibition and catalogue bring together the concerted practical efforts of two philosophers. John Slater and Michael Walsh are both committed book collectors of considerable experience whose collections have been conjoined in the Thomas Fisher Rare Book Library. In 1982 an exhibition from Professor Slater's outstanding collection of the works of Bertrand Russell was mounted and he has continued to donate large quantities of books of modern British and American philosophy. A selection of Dr. Walsh's collection of the history of philosophy covering the subject from ancient to modern times concentrated (as he explains in his Foreword) on the earlier period and we are now privileged to see, and reflect on, the fruits of the busiest century of philosophical speculation. This exhibition is also a tribute to the bibliophilical exertions of two of the Fisher Library's most important donors.

The University of Toronto has taught philosophy as an academic discipline since 1843; its history was published by Professor Slater in 2005. The library collections have long reflected this interest and the Fisher Library contains separate special collections of Aristotle, Bacon, Hobbes, Locke, Rousseau, and Voltaire. We are said to have the strongest collection of Scottish Enlightenment material outside Scotland and our French Enlightenment collections are very extensive. It thus seems natural to welcome important philosophical works of the late nineteenth and early twentieth centuries into the fold. Some books are rare because of their age and expensive because of the importance of the texts they contain, but there are many other factors of rarity and modern books can be both rare and expensive. J.M.E. McTaggart's *The Further Determination of the Absolute*, privately printed

in 1893, and the typescript copies of Wittgenstein's "Blue Book" and "Brown Book", 1933-1935, are but two examples.

Most scholars are not much concerned with the rarity of books, except when they cannot find something they need for their research, and institutions like the Thomas Fisher Rare Book Library exist to make available to them the resources they cannot find elsewhere. One of the primary reasons that such institutions are able to offer the rare, the scarce, and the common, all in one place, is the concerted bibliophilia of collectors like John Slater and Michael Walsh. Savour these collections and think about these books.

Richard Landon,  
Director.

## FOREWORD

F. Michael Walsh

Four years ago The Thomas Fisher Rare Library presented an exhibition, *Philosophy & Bibliophily*, which introduced to the public a collection of philosophical books that I had given to the University of Toronto. In organizing that exhibition I was disappointed that limited display space dictated that the scope of the exhibition be truncated—in order to do justice to the older holdings of the Walsh Philosophy Collection it was decided to exhibit very few books from the post-1870 period. However, I voiced a hope in the exhibition catalogue that an opportunity would be found at some future date to correct this omission by mounting a second exhibition of more recent philosophical literature.

*Despite every effort to squeeze as much as possible into the display cases... the exhibition could only retain its integrity if it curtailed its range... Unfortunately, this distorts the historical picture considerably, as this post-1870 period is one in which philosophy has flourished both in numbers and in quality and originality of thought... I can only hope that at some later time these books can be exhibited, perhaps in conjunction with items from the uniquely comprehensive collection of this post-1870 period donated to the Fisher by my good friend Professor John Slater.*

Well, that time has come.

In mounting this second exhibition John and I have made several changes from the approach that I took in 2004. First, and perhaps most importantly, while that exhibition and catalogue were organized chronologically, this exhibition has been arranged thematically. The 2004 exhibition covered a broad sweep of time, about four centuries of publishing and over two millennia of philosophizing, while this

covers roughly one. The broad sweep of time in the first exhibition suited an approach that emphasized the *before* and *after* of the works included: for instance, Kant *before* Hegel and Schopenhauer *after*. In putting together an exhibition of books drawn from the post-1870 period, this approach seemed very problematic. Should Popper be before or after Ryle, for instance? What seemed to make more sense was to try to group books into the major branches of philosophy: Logic, Ethics, Metaphysics, and so forth.

Having made that decision, we then determined that ten such areas would be chosen—one for each of the major display cases in the Fisher Library. This forced us to make two compromises in selecting books and to choose a very different approach to writing the catalogue than that which I had taken in 2004. On that occasion, in conformity with the chronological ordering of the display, each book had a separate catalogue description and a short discussion that introduced the author of the book and the book's interest and/or importance. Having abandoned chronology for a thematic ordering, in this instance we instead decided to write a short essay for each of the ten chosen areas. Each essay seeks to provide within it some of the same information for an exhibited book, but the freedom of the essay form also enables us to better discuss some of the interrelationships between the chosen books and others within and without that display case, and also to discuss more perfunctorily some of the other important books within the area that had to be excluded for limitations of space.

One warning, many books could have been displayed in more than one case—that is to say, their content involves more than one branch of philosophy. Our decision to place a particular book in its case was determined first by its recognized importance to that field, but also, in some instances, by the fact that it would not otherwise have been easily accommodated in another case where by content alone it may well have fit.

What then were the two compromises? First, although the Fisher display cases each hold an approximately equal number of books, that doesn't naturally match the output of philosophers. It may well be that

there are far more worthy candidates for the Logic cabinet, let us say, than were available for that which holds Philosophy of Mind. We simply tried to pick the most interesting and/or representative items from our collections that would fit into a particular thematic case. We did not try to squeeze the worthy books that would have to be left out into some other case, but did in more than one instance draw attention to their absence within the essays. Needless to say, there are very many excellent books and philosophers (e.g. Charles Hartshorne and Wilfrid Sellars) that were left out altogether.

Second, there are obviously more than ten branches of philosophy. Mentioning just two that were left out—Aesthetics and Philosophy of Religion—will make this abundantly clear and controversial. We all have our favourites; indeed, aesthetics is the area of philosophy in which I had spent most of my time, and philosophy of religion remains a major personal interest. However, we had to make hard choices. If we had included Aesthetics, for instance, what would we drop? Philosophy of Mind? Political Philosophy? In order to offset this selection effect somewhat we have included in smaller display cases downstairs several books from each of Aesthetics and Philosophy of Religion. Although these have not been given a separate essay, I have made a few remarks about each branch in an Appendix.

Something needs to be said here in the Foreword about one cabinet and its accompanying essay: that devoted specifically to Continental Philosophy. Clearly, this exhibition has an English-language bias. There is no doubt that an exhibition of recent philosophical literature being mounted in France (let alone Quebec) or Italy or Germany would contain a substantially different selection of books than those we have chosen. We freely admit that this reflects both the limitations of our knowledge and collections. With the exception of logic, John's collection is almost exclusively what its official title claims—the John G. Slater Collection of British and American Philosophy. While the Walsh Philosophy Collection is very strong in older books published on the Continent, for the post-1870 period it is demonstrably stronger in English-language books. While some Continental writers are

included within the nine selected branches, for example, Gottlob Frege in Logic and Ernst Mach in Philosophy of Science, their absence in most others is only partially offset by devoting a display case and essay to some of the high spots, to use a collector's term, of Continental Philosophy.

As well, an essay and most of a case have been devoted to scholarship in the History of Philosophy. A characteristic of philosophical writing at all times has been an unusual and important interest in the literature of its past. Philosophers very often do philosophy by engaging in argument with their predecessors. As a result, during this period scholarship into the history of philosophy has been valued as an important part of philosophical teaching, research, and writing. We have included a representative selection of works of this kind in one of the downstairs corner display cabinets, along with some important works on the Philosophy of History.

Finally, philosophers do more than write philosophy. Not surprisingly, the diversity of their interests outside of philosophy is evidenced by the considerable variety of books they have written in other areas. Many have also had a wonderful sense of humour—in particular, a delightful ability to laugh at themselves and their peers. To capture this aspect of their activity we have included in another downstairs display case a sampling of the varied contribution to literature made by philosophers.

How do you hold these various themes together? One approach is to convey something of the institutional changes that gave rise to and then sustained the explosion of philosophical writing since 1870. In the accompanying introductory essay Professor Slater introduces us not only to those changes but also to the several schools of thought that dominated English-language philosophy in the period since. His essay provides a context for the mini-essays that follow.

Primary responsibility for each essay is indicated both in the Contents and at the conclusion of each essay, although the items exhibited are drawn from both our collections. While each essay is intended to be freestanding, the principal personal information regarding an

author may be in another essay. To assist in finding references to individual authors, a name index is provided at the end of the catalogue. As well, fuller bibliographical references are given there for the exhibited items. Within the thematic essays, references to works that are included in the exhibit are given in **boldface type** and a reference to its number in the exhibition is shown in the outside margin.



## INTRODUCTION

John G. Slater

The period covered in this exhibition is, in terms of the number of publications at least, the most fruitful in the history of philosophy. Its early years coincide with an important change in the teaching of philosophy in the English-speaking world, during which there is a gradual disentanglement of philosophy from the Christian religion. Earlier generations had feared the power of philosophy to lead youths astray, so they had delayed its teaching until the latter part of a baccalaureate education, and then entrusted its teaching only to ministers of religion of impeccable rectitude. The consequence was that a student with an interest in philosophical questions and a talent for thinking about them had first to become a minister in an established Christian sect in order to have any hope of teaching the subject, but by the time he was ready for a college appointment he had probably become fatally infected with the pat answers peddled by his church. The men who taught during those years did write books, but they were nearly all designed for use as textbooks. The books that mattered philosophically were being written by men outside the academy, most of whom were religious laymen and in some cases non-believers. Jeremy Bentham and James and John Stuart Mill are prime examples. It is true that some of those responsible for teaching the subject read their books and made use of some of their ideas, but only those that did not conflict with the basic set of Christian beliefs. There was after all safety in orthodoxy.

The above remarks apply only to colleges and universities in Great Britain and the United States of America that were Protestant in orientation. In Roman Catholic colleges and universities philosophical instruction was also restricted to the later years and it was largely

taught from manuals that had received seals of approval from the church hierarchy. These manuals contained a mish-mash of various philosophical doctrines, some of which were drawn from secular philosophers like Descartes. It was not until 4 August 1879, when Pope Leo XIII issued his encyclical *Aeterni Patris: On the Restoration of Christian Philosophy*, that the writings of St. Thomas Aquinas were designated as the official Catholic philosophy and all institutions were commanded to teach only his philosophy. New manuals were prepared and were assigned as texts. Very few instructors assigned Aquinas's own works. This pattern of instruction persisted until after the Second Vatican Council in 1962-65. Since that time there has been no uniform curriculum in philosophy in Roman Catholic institutions.

A core tenet of Protestantism (except for its Calvinistic branches like Presbyterianism which espoused predestination) is that each individual is responsible for his or her own salvation. It was this conviction that made religious authorities wary of teaching philosophy to teenagers. In very many American institutions philosophy was taught only in the year a class graduated, and even then it was taught from carefully written textbooks that were designed to avoid all contentious religious questions. In many institutions the questions studied were limited to ethical ones. In England students did read the original writings of some great philosophers. At Oxford they read Aristotle and John Locke, but in the earlier part of the nineteenth century they ended with William Paley, a staunch defender of the argument from design for the existence of God and a Christian apologist. Later in the century the writings of some contemporary figures like John Stuart Mill were added to the curriculum. Some Plato and Cicero were also studied in the classics part of the course, but there the emphasis was on the language, not the ideas. In the nineteenth century there was no separate course in philosophy. At Cambridge the Moral Sciences Tripos was instituted by William Whewell in 1851, but it was several years before it graduated its first students. Although a study of Greek and some modern philosophy was included in the second part of the work for the primary classics degree *literae humaniores*, familiarly known as 'Greats',

Oxford did not establish a course in philosophy until 1920 when it instituted 'Philosophy, Politics and Economics', commonly known as 'PPE'.

The impetus for change in the English-speaking world came from German universities, which had established professorships in philosophy much earlier. They were also the first to establish advanced degrees as a preparation for teaching. The doctor of philosophy degree was instituted around 1830 and proved successful in inducing the smartest undergraduates to continue their study. Successful candidates had to prove their competence, first by passing comprehensive examinations, and then by submitting and orally defending a dissertation. The dissertation had to exhibit some originality before it could be accepted as partial fulfilment of the requirements of the doctorate. When knowledge of this degree spread to the United States, professors began urging their best students to go to Germany and acquire the degree. Successful candidates had no difficulty in securing positions upon their return. Some institutions even paid promising students to get German doctorates on the condition that they teach for them when they had been awarded the degree. Some American educators began to think that the process of training future faculty would be more efficient if the doctorate were to be offered by local universities. Yale University was the first to establish the Ph.D. in 1861. It was quickly followed by several other institutions and one, the Johns Hopkins University, was inaugurated as a school for graduate students only. By the end of the nineteenth century American schools were producing enough doctorates to fill the needs of the nation's colleges and universities.

British universities resisted instituting doctoral programs for decades. Instead they offered fellowships to their best undergraduates. To be considered for a fellowship a candidate had to submit a thesis on some topic in an area specified by the college offering the fellowship. Theses were read by a faculty committee with the power to elect fellows. Since there were often fewer fellowships than candidates only a small number were successful. It was not until after the Second World War that Oxford instituted the Bachelor of Philosophy and the Doctor of

Philosophy degrees. The former requires candidates to pass certain written examinations and to submit a thesis; the latter requires a thesis only, which may or may not, depending on the judgment of its readers, have to be defended in an oral examination. The University of Cambridge took the German route and established the Ph.D. as its most advanced degree. Most of the other British universities followed its lead.

One consequence of this revolution in philosophical education was that larger American universities increased the number of professorships in philosophy. Where formerly the whole curriculum had been taught by one man (and they were all men), now the subject was divided into its various divisions with a professor in charge of each of them. The day of the one man band was coming to a close, except in smaller schools unable to afford an expanded faculty. To cite just one example, by the end of the nineteenth century Harvard University employed half a dozen professors of philosophy. Students, faced for the first time with a rich choice of options, began to concentrate their studies in one of philosophy's main branches, and when they went to graduate school they continued to specialize. As professors themselves, they taught, at the higher levels, courses in the area in which they had been trained. Specialization tends to breed more specialization. Today, in large departments, there are dozens of specialized areas of instruction in contrast to the half dozen or so at the turn of the twentieth century.

Another consequence of this expanded activity was the development of various schools of philosophy. In the United States the work of Charles Sanders Peirce spawned pragmatism, which is essentially a theory of knowledge founded on a theory of meaning. The word 'pragmatism' itself was adopted by Peirce to emphasize his principle that 'only practical distinctions have a meaning'. Pragmatism drew heavily from science, and the scientist's way of settling questions was taken to be the best method available for determining the meaning of words. In a famous remark in 'How To Make our Ideas Clear' (1878) Peirce sought to settle, once and for all, what 'truth' and 'reality' meant: 'The opinion which is fated to be ultimately agreed to by all who investigate, is what we mean by the truth, and the object represented in this opinion is the

real. That is the way I would explain reality? Pragmatism is an empirical enterprise, giving a decisive role to sense experience in resolving doubt and establishing belief.

William James adopted Peirce's position as his own when he turned his attention to philosophical questions after working half a lifetime as a psychologist. James wrote several memorable essays popularizing his version of pragmatism much to the annoyance of Peirce who in protest renamed his position 'pragmaticism', a name too ugly, he said, to tempt anyone to steal it. For James the meaning of a statement was to be found in the sensations to be expected upon hearing or reading it and the reactions to be prepared. As for truth, it was what worked in practice. In 'The Will to Believe' (1896) James argued for a theistic position somewhat akin to Pascal's wager: that one should bet on God's existence because if you are right, then you win eternal life, and if you are wrong, you lose nothing at all. James's position is 'that we have the right to believe at our own risk any hypothesis that is live enough to tempt our will'. If the consequences of holding the belief are on the whole satisfying, then this was really all the justification one needed that the decision was right. His critics were wont to say that this was equivalent to asserting that, if belief in God made you feel better than non-belief did then it was pragmatically justified. James made pragmatism popular but at the price of generating numerous critics. Bertrand Russell was one of the fiercest, citing this counter-example: 'It is far easier, it seems to me to settle the plain question of fact: Have Popes always been infallible? than to settle the question whether the effects of thinking them infallible are on the whole good.' Peirce, too, rejected James's injection of subjective considerations in the establishment of belief. To him it was going beyond the facts.

John Dewey was the next major figure to adopt a form of pragmatism as his philosophical position. Whereas James was a brilliant stylist with many readers, Dewey was not. His style had been developed in his early days as a follower of Hegel and he never succeeded in getting rid of its ponderosity. His books are not for bedtime reading unless one's aim is to fall asleep at once. Dewey is best known for applying the prag-

matic view to questions of education. Through his teaching and writings on education he effected a revolution in the way schools were conducted. To test his ideas he founded an experimental school and soon others emulated him. Thus, progressive education was born. A main target of his reform was learning by rote, a method of teaching much used and also much abused at the time. As one might expect given his commitment to pragmatism, Dewey's theory of education placed great value on activity. A child learned by performing certain actions. Group activities were stressed on the ground that they prepared children for what was typical of adult life. Dewey also brought pragmatic principles to bear on many aspects of social life. He inspired, and still does inspire, many philosophers to follow in his footsteps. Richard Rorty is perhaps the best known of his latter-day disciples. During his very long career Dewey published major works in a number of areas, including ethics and logic.

Even though pragmatism attracted a large number of followers in the United States, it was not the only school of philosophy being taught in its universities. By contrast, pragmatism never caught on in Britain. Its only prominent exponent there was F.C.S. Schiller, and after heroic efforts to attract followers he gave up and moved to California where he taught for the rest of his life. What Schiller was up against in Britain in the early years was idealism and after the turn of the century the realism of Russell and G.E. Moore. The idealism prevalent in British universities was derived from Hegel. In 1865 James Hutchinson Stirling, a Scottish philosopher, had published a huge tome entitled *The Secret of Hegel*, of which Emerson in a review remarked, 'he kept the secret well'. Despite its essential unreadability, students took in enough of it to conclude that the Hegelian philosophy was very profound and promised riches beyond measure. Its idealism appealed to men still very much influenced by their Christian upbringing. Hegel's claim that the world was gradually working itself toward a final state of perfection, called the Absolute, where all contradictions were resolved, appealed to many of these men. His rejection of materialism pleased those of a spiritualistic cast of mind. They also found that the

Berkeleyian view that *esse est percipi* fitted well into their understanding of Hegelianism. Hegelianism was taken up and modified to make it more palatable to British tastes. Absolute idealism, as the position came to be called, was, one wit noted, 'Hegelianism modified by Anglo-Saxon caution.' Absolute idealism encompassed three idealisms: (1) axiological idealism, the view that good is in control of the universe (the doctrine of the Absolute); (2) epistemological idealism, the view that to be is to be perceived; (3) ontological idealism, the view that only mind is real and that what is commonly called matter is just low grade mind. Each of these positions can be held apart from the other two as a study of the history of philosophy proves.

F. H. Bradley was one of the first philosophers in Britain to adopt an idealistic position. In his writings he poured scorn on the works of those (like Alexander Bain) who were still committed to the British tradition stemming from Locke, Berkeley, Hume, and the Scottish philosophers. In Bradley's opinion, they dealt in appearances only, and never even glimpsed the reality underlying the phenomenal world. To reach it a mastery of the Hegelian dialectic—the progressive resolution of contradictions—was essential. His great work, *Appearance and Reality*, is his heroic attempt to present his readers with a full account of the steps required to get (just) a glimmering of the nature of the Absolute. One cannot reach it, of course, since it is in the remote future, but one can come to appreciate something of its nature without grasping the whole of it. Bradley wrote an influential book on logic developing the logical ideas he had adopted from Hegel. An early work on ethics contains a famous essay 'My Station and its Duties', whose very title neatly summarizes his ethical position. In later years he entered into dialogues with both James and Russell carried out in the pages of *MIND*.

Although Bradley's lifetime fellowship did not require him to teach nor, indeed, to perform any other duties, he nevertheless was very influential in shaping the views of several of his contemporaries. One cannot call these men his disciples, for all of them developed their own idiosyncratic way of revealing to their readers the idealism they

espoused. Bernard Bosanquet was one of the most prolific of these writers. In the course of a long career he published books in most major areas of philosophy. Since he had a private income, he taught for only a few years as a young man. In later years he and his wife Helen, also a prolific author, devoted much of their time when they weren't writing books to various charitable causes. Another important idealistic philosopher was J.M.E. McTaggart who was an influential member of the philosophical faculty of Cambridge University for many years. Two of his brightest pupils, Russell and G.E. Moore, were initially influenced by his teachings but after a short time metamorphosed into two of his severest critics. Moore was especially relentless in mocking McTaggart's views. McTaggart held the view that time was not real, so Moore teased him by asking if that meant that it was just as true to say that he ate his breakfast after his lunch as it was to say the opposite. When McTaggart urged the truth of monism, Moore would jangle several coins in his hand and demand to know whether McTaggart was prepared to deny that he had a handful of coins.

In the United States the idealism espoused and taught is more properly classified as a form of Christian idealism. Josiah Royce of Harvard was its most important exponent. One of his central concerns was to understand the external world. Its existence, he argued, required an ideal knower whose perception of the world assured its existence. Since the external world appears to exist for us, then there must be an actual ideal knower who perceives it constantly. This, of course, was God. His God is not the Hegelian Absolute that only appears at the end of the world. His God is a transcendent being outside space and time, and as other of his writings reveal, is the God of Christianity. Like his British counterparts Royce adopted ontological idealism, but on the axiological side the dominant idea was the Christian God, not the Absolute. God did have some of the characteristics of the Absolute, but could never be completely known. Christian idealists held that God is to be worshiped, but absolute idealists did not regard the Absolute as an object of worship.

Absolute idealism began to be challenged around the turn of the

twentieth century by Russell and Moore. Moore had learned from Henry Sidgwick, one of his teachers at Cambridge, to demand from those with whom he debated philosophical questions that they explain what they meant by their statements. 'What do you mean by that?' became a Moorean trademark, very much feared by those he cornered in argument. In fairly short order Moore concluded that the idealists could not explain the meaning of their central terms, and that spurred him to rethink some central problems of philosophy. He embraced the material world of our senses as real; grass really did exist apart from our perception of it and moreover it was green. The position came to be called 'realism' to contrast it with the prevailing idealism. Russell has written that Moore was the first to abandon idealism and that he followed him. But Russell, an avid student of mathematics, had another reason for rejecting Hegelianism. Hegel's commentators had tried to explain Hegel's theory of mathematics, but Russell could make nothing of their attempts, so he decided to read for himself what Hegel had to say on the subject. When he did he found it almost completely nonsensical, and this discovery caused him to doubt the rest of the Hegelian system. He was thus ripe for conversion when he was goaded by Moore.

Central to realism is the representative theory of perception. Developing a plausible version of this theory required all the ingenuity Russell and Moore possessed. The burden fell largely on Russell. Moore had shifted his interest to questions of ethics. Russell brought to bear on the problem the tools of modern symbolic logic, which he had helped to develop. He used the notion of sense data to designate what a person is aware of when perceiving a physical object. To carry out a realist agenda, sense data had to be part of the object being perceived, and, of course, they had also to be part of the perceiver, but not be mental constructs. Constructing such a theory proved enormously difficult. At one stage Russell was forced to admit the existence of unsensed sense data (he called them *sensibilia*), a view that his critics pounced upon with glee. After several attempts Russell adopted and modified a late position of William James called neutral monism.

According to Russell's version, which he called logical atomism, the basic building blocks of the world are events, very short periods of space-time. Events organized by the laws of physics yield the material world; events organized by psychological laws give the mental world. Acts of perception occur at the points where the two chains intersect.

What has endured from the work of Russell and Moore is analytical philosophy. They were persuaded that work in philosophy was best carried out by groups of thinkers. Problems could be broken up into manageable pieces and the parts worked on by thinkers in various locations. Results would be published in journals or delivered orally at conferences; in this way it was hoped that some progress could be made on solving longstanding problems. The model, of course, was science, and Russell wrote the method up in 'Scientific Method in Philosophy'. The tools to be used were all the latest ones being developed by those working in logic, as well as the more informal ones to be learned from a careful reading of the great historical figures. The day of solitary thinkers spawning grand systems had passed, they argued. Their pupils began to teach this approach to philosophy to their students and, throughout the English-speaking world it caught on and prospered until the vast majority of those teaching philosophy were its adherents. Analytical philosophy is not a set of philosophical doctrines, rather it is a method for coming to grips with philosophical problems.

In the years when Russell was working on these problems and with Alfred North Whitehead writing the monumental *Principia Mathematica*, a student came into his life who was destined to play a central role in the way philosophy would develop in the decades after the First World War. Ludwig Wittgenstein, a scion of a wealthy Austrian family, had come to England to pursue his studies in aeronautics. Soon after arriving he became fascinated with certain problems in the foundations of mathematics. His teachers at Manchester advised him to go to Cambridge and study with Russell. Thus began a very complicated personal and philosophical relationship between the two men. Within a year or two Russell began to treat his pupil as his equal in logical

acumen. He used 'Notes on Logic' by Wittgenstein in a course he taught at Harvard in 1914. When the First World War broke out, Wittgenstein, who was an Austrian patriot, left Britain and joined its army, thus becoming an enemy of Britain. After the war he contacted Russell and sent him the manuscript of an aphoristic book he had written in the trenches. It was, he claimed, a development of their joint ideas in logic. Russell had his doubts about that claim, but he recognized it as an important contribution to philosophy. Through his efforts it was first published in a German journal; Russell satisfied the publisher's demand that he write an introduction. Russell then asked C.K. Ogden to translate it into English and to publish it as a book, *Tractatus Logico-Philosophicus*, with German and English text on facing pages. Russell's introduction, now in English, also graced it.

This obscure and difficult book did not find many readers, but some of those it did find proved to be very influential. In Vienna in the 1920s a small number of philosophers started to gather with Moritz Schlick to discuss questions of common interest. Calling themselves 'the Vienna Circle', they were all familiar with the writings of Ernst Mach and the logical writings of Russell. When Wittgenstein's work became available they studied it intently. They distilled from these writings a position they called 'logical positivism', an empirical philosophy that rejected traditional metaphysics as meaningless. There were just two kinds of meaningful sentences: empirical statements like 'the sun is shining' which can be verified by sense experience; and analytical statements like 'all bachelors are unmarried' which can be shown to be true (or false) by analyzing the meaning of the words involved. Whole areas of human discourse were thus cast aside as meaningless. Theology, metaphysics, and ethics were all jettisoned. It was a philosophy to appeal to the young, and one young man in England, A.J. Ayer, wrote a best-selling book, *Language, Truth and Logic*, extolling its cleansing effect on the history of philosophy. Despite being a twentieth-century school, the intellectual roots of logical positivism go back at least to David Hume who, in a memorable passage, stated its core doctrine: 'When we run over libraries, persuaded of these principles, what havoc

must we make? If we take in our hand any volume of divinity or school metaphysics, for instance, let us ask, *Does it contain any abstract reasoning concerning quantity or number?* No. *Does it contain any experimental reasoning concerning matter of fact and existence?* No. Commit it then to the flames, for it can contain nothing but sophistry and illusion.'

Even as logical positivism was spreading like wildfire among younger philosophers, its critics were preparing to stop it dead in its tracks. Its fatal weakness lay in its doctrine of meaning that only empirical and analytical statements were meaningful. No matter how you choose to state the doctrine a problem arises. Is it a matter of fact whose truth can be established by an appeal to sense experience? Clearly not. Can it be shown to be true by analyzing 'empirical' and the other words making it up? Many tried to do it, but in the end all had to admit defeat. If logical positivism's central doctrine violated itself, then the structure built upon it had no foundation. It proved a mortal blow. Those who had found it attractive were forced to make rather severe modifications in their position. What emerged was called logical empiricism, which retained as much of its parent as possible but had to abandon its more extravagant claims. The logical empiricists were decidedly anti-metaphysical and anti-theological, but they did find a place for ethics by introducing a new concept of meaning, namely, emotive meaning.

The rise of Hitler and the Second World War profoundly affected the teaching of philosophy among all the belligerents. Except for Moritz Schlick, who was murdered by a deranged pupil in 1936, nearly all of the other members of the Vienna Circle decamped to the United States where they were able to find teaching positions due to the shortage of younger men who were being drafted into the armed services. Teaching during the war was a bit of a holding operation, because nearly all men of college age were in the various services. The influence of these expatriates was most pronounced in the years immediately after the war when they helped to train the next generation of philosophy professors. The logical empiricism they espoused came to dominate departments in the United States. It was gradually transformed back into the analytical philosophy of Russell and Moore, which like its more recent an-

tecedents relied heavily on the new symbolic logic being developed by many thinkers. In contrast to logical positivism, analytical philosophy does not declare certain questions off limits. Its techniques are applied to metaphysical, theological, and ethical questions, as well as those in theory of knowledge and the philosophy of language. Its adherents were to dominate philosophy departments for the remainder of the century and almost certainly well into the present one.

Analytical philosophy was slower to take hold in Great Britain. In the 1950s there arose a school that called itself 'ordinary language philosophy'. Its central concern was to elucidate the logic of selected terms as they were used in ordinary discourse. Its practitioners were wont to ask such questions as 'what is the logic of "to break"?' And then proceed to relate a series of anecdotes in which the word figured prominently, the aim being to elucidate the complexity of the rules governing the use of such a term. Its most famous devotee was J. L. Austin of Oxford who advanced the idea of compiling a dictionary in which a collection of typical uses for each entry would be presented for the user's edification. Austin died young and it is fair to say that the school he so ardently defended did not long survive his demise. During later decades of the century analytical philosophy came to dominate in Britain too.

Both the logical positivists and the ordinary language philosophers argued that their methods had a therapeutic effect on both themselves and other philosophers. For the positivists to see that some metaphysical doctrine was meaningless meant that you would not any longer be tempted to make sense of it, thus freeing yourself to do something more worthwhile. For the ordinary language adherents, to come to understand the rules governing the use of a term like 'free will' was to rid oneself once and for all of all the argumentative debris that had accumulated around the term in the history of philosophy. The aim of thinking, in part at least, was to free oneself from the necessity of thinking. It was not, however, universally acknowledged to be a good thing.

A noteworthy development during the last quarter of the twentieth century was a renewed interest in the philosophy of Hegel in the

United States, and, more generally, the emergence of a group that came to be called 'Continental philosophers' on account of the inspiration they drew from German philosophers in particular. Some in this group, especially those with a Catholic background, confined their study to the Hegelian philosophy, but they constituted a minority. The majority drew their inspiration from the writings of Martin Heidegger whose seminal work *Being and Time* made central use of the history of philosophy, going back to the ancient Greeks. But whereas the ancient Greeks were essentialists, holding that essence (Platonic ideas or forms) preceded existence (exemplars of the forms), Heidegger turned it around and argued that existence preceded essence. Things, including human beings, come into existence and through their history on earth (in the case of humans their choices) define what they are, thus revealing their essence. Existentialism became a very popular philosophy, especially during and after the Second World War. Other noted existentialists were Karl Jaspers and Jean-Paul Sartre. In addition to his formidable tome *Being and Nothingness*, Sartre popularized his philosophy by writing plays and novels. His first novel was entitled *La Nausée*, and its message to the reader was that when one clearly understood the terrible freedom to which one was doomed, since there was no essence to guide one's choices, the person would be filled with nausea. There is not a lot of cheer to be found in Continental philosophy.

During the decades sketched above there still were solitary thinkers who charted their own course. George Santayana is an outstanding example. Although he called himself a realist, he did not regard himself as a member of a school. He wrote up his philosophy twice, first, in a set of five volumes under the title *The Life of Reason*, and then, again in a set of five volumes under the title *Realms of Being*. The very title of the latter series reveals that he was fond of using a vocabulary that nearly all of his contemporaries eschewed. His most enduring contribution to philosophy is *The Sense of Beauty*, which he wrote while teaching at Harvard in order that his students could have a textbook for his course. It is the first book on aesthetics published in the United States. In 1935 he published *The Last Puritan: a Memoir in the Form of a Novel*, which,

unlike most novels written by philosophers, was very well received by the critics.

A notable feature of this later period is the gradual emergence of a sustained interest in the history of philosophy. Several multi-volume histories were written and published, most beginning with the Greeks and ending sometime in the twentieth century. In 1956, one historian of philosophy, the Australian John Passmore, in *One Hundred Years of Philosophy* concentrated on roughly the period covered by this exhibition. In planning the exhibition we found ourselves making frequent references to his work. His choice of the important philosophical works of the period served as starting points for our selection of the books and pamphlets to illustrate one of the most prolific centuries in the history of philosophy.



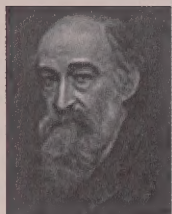
Deductive logic enjoyed a real renaissance during the period covered by this exhibition. Aristotle was the first to write on the subject, and he is usually credited with establishing it as a branch of philosophy. His main preoccupation was with the syllogism, an argument form consisting of three propositions, one of which is said to follow from the other two. The premisses are linked by a common term, called 'the middle term', which vanishes in the deduction: all trees are green plants; all green plants emit oxygen; therefore, all trees emit oxygen. Other forms of the syllogism involve 'some' as quantifier, but only in one premiss for valid syllogisms. The other important contributors to deductive logic in ancient times were the Stoics who studied logical connectives like 'if-then', which are the foundation of what came to be called 'the propositional calculus' during the nineteenth century. In the Middle Ages, logicians did highly capable work on logical connectives, such as 'and', 'or', and 'not', and other topics such as universals. In modern times Leibniz (1646-1716) was fascinated by the possibility that logic could be presented as a calculus, with the desirable consequence that disputes could be settled amicably, by inviting an adversary to 'come let us calculate'. Despite his great genius Leibniz was unable to discover such a calculus. It fell to an extraordinary group of very able men in the last half of the nineteenth century and a decade beyond to develop deductive logic as a calculus.

In the year 1847 two remarkable books in logic were published in London. George Boole's *Mathematical Analysis of Logic* presented an important part of traditional logic as a set of equations. Boole (1815-64), a British mathematician and philosopher, allowed only two quantities, 0 and 1, where 1 stood for 'all' and 0 for 'none'. Variables like  $x$  and  $y$  were

used to represent adjectives and nouns. For example, if  $x$  stood for 'bipedal' and  $y$  for 'animal', then  $(1 - x)$  means 'everything that is not bipedal' and  $(1 - y)$  'everything that is not an animal'; and together  $(1 - x)(1 - y)$  they denote everything that is neither bipedal nor an animal. Boole discovered that the usual algebraic rules applied to such quantities, thus reducing Aristotelian syllogisms to equations to be solved in the usual manner by eliminating the common, or middle, term. This arithmeticization of logic, now commonly called 'Boolean algebra', in the twentieth century served as the foundation for the logical design of computer circuits. Boole developed his ideas more fully in 1854 when he published *An Investigation of the Laws of Thought on Which are Founded the Mathematical Theories of Logic and Probabilities*.

The other book published in 1847 was written by the British mathematician Augustus DeMorgan (1806-71). Entitled *Formal Logic* it extended the theory of the syllogism into new territory. DeMorgan altered the invalid syllogism, 'some  $x$  are  $y$ ; some  $x$  are  $z$ ; therefore, some  $y$  are  $z$ '; to read 'most  $x$  are  $y$ ; most  $x$  are  $z$ ; therefore, some  $y$  are  $z$ ', and showed that it was valid. These so-called numerical syllogisms had not been studied by Aristotle or any of his followers. Sir William Hamilton (1788-1856), who taught logic at Edinburgh, was passionately interested in what he called the 'quantification of the predicate'. The predicate is the second term in a proposition like 'all humans are mortal'. Hamilton thought such propositions included a suppressed quantifier, thus he wrote the standard proposition 'all humans are mortal' as 'all humans are some mortals', and went on to explore the validity of the Aristotelian syllogisms when the predicates were thus suitably quantified. When DeMorgan sent him his work on numerical syllogisms, Hamilton accused him of plagiarism, failing to understand the radical difference between his work and DeMorgan's. Hamilton being a very stubborn man, the dispute dragged on for years.

DeMorgan discovered two of the basic laws of the propositional calculus which show the relationships between the logical notions 'not', 'and' and 'or'. It should be noted that 'or' here is meant in its inclusive sense ('vel' in Latin) where it is equivalent to 'either  $p$  or  $q$  or both



ADORNO  
ALEXANDER  
ANSCOMBE

p and q' which is by far the commoner of its two senses. The exclusive sense ('aut' in Latin) 'either p or q, but not both p and q' is seldom used outside restaurant menus. DeMorgan noticed that to say 'it is not the case that both p and q' has the same meaning as saying 'either not p or not q'. And to say 'it is not the case that either p or q' is equivalent to saying 'it is not the case that p and it is not the case that q'. For those who shy away whenever they are confronted with symbols, substitute 'Al will win' and 'Bob will win' for p and q and imagine them as candidates for a single office, then stating that 'Al and Bob cannot both win' is equivalent to stating that 'either Al will not win or Bob will not win'. For the other DeMorgan theorem substitute 'you will go' and 'I will go' for x and y, then 'it is not the case that either you will go or I will go' is the same as 'you won't go and I won't go'. Claude Shannon (1916-2001), who learned these laws in an undergraduate logic class at the University of Michigan was able, while a graduate student in electrical engineering at the Massachusetts Institute of Technology to show how these equivalences could be used to reduce complicated telephone circuits which had grown up haphazardly over the years to their simplest equivalents, thus saving large sums of money when rewiring was required.

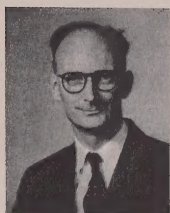
The enormous boost that the work of DeMorgan and Boole gave to the study of deductive logic spurred others to make additional advances. The German mathematician Gottlob Frege (1848-1925) in *Begriffsschrift: eine der arithmetischen nachgebildete Formelsprache des reinen Denkens* (1879), by introducing symbols for 'all' and 'some', demonstrated that the Aristotelian valid syllogisms could be fitted into the Boolean logic where they formed a small but important subset of valid theorems. Using 'Hx = x is human' and 'Mx = x is mortal', 'all

2

humans are mortal' was symbolized using the universal quantifier as  $(x)(Hx \supset Mx)$  where  $\supset$  stands for 'if-then'. The whole formula is read 'For all  $x$ , if  $x$  is human then  $x$  is mortal'. The quantifier for 'some' is called 'the existential quantifier', underscoring the commitment to existence that the use of 'some' entails.  $(\exists x)(Hx \& Mx)$  is read 'there is at least one  $x$  such that  $x$  is both human and mortal'. The introduction of these quantifiers had a powerfully liberating effect on the development of deductive logic. They made it possible to symbolize such non-Aristotelian statements as 'every dog has his day':  $(x)[Dx \supset (\exists y)(Ay \& Byx)]$  where ' $Byx = y$  belongs to  $x$ '. No matter how many words of quantity a statement contains it can be symbolized using Frege's innovations, but one must pay close attention to grouping and make sure that each quantifier's scope is as short as possible without leaving any variable ( $x$ ,  $y$ , etc.) out in the cold.

There is an interesting relationship between the universal and existential quantifiers and negation. Consider the predicate ' $Rx$ ', understood as ' $x$  is red'. Then ' $\sim(x)\sim Rx \equiv (\exists x)Rx$ ' is read 'Not everything is non-red is equivalent to something is red'; ' $\sim(\exists x)\sim Rx \equiv (x)Rx$ ' is 'Nothing is non-red is equivalent to everything is red'; ' $\sim(x)Rx \equiv (\exists x)\sim Rx$ ' and ' $\sim(\exists x)Rx \equiv (x)\sim Rx$ ' are read respectively as 'Not everything is red is equivalent to something is non-red' and 'Nothing is red is the same as everything is non-red'. The same four equivalences hold between the pairs 'necessary and possible' and 'forbidden and permitted'. The originators of our language had a very sophisticated logical sense, however crude they may have been in other respects.

A two-place predicate ' $Byx$ ' was introduced above without comment. Such predicates are called relations and may exhibit more than two variables. ' $x$  sold  $y$  to  $z$  for  $w$ ' is a four-place predicate everyone is familiar with, and there are indefinitely many more multi-place predicates. To symbolize a statement which includes a four-place predicate requires, of course, four quantifiers, so matters can become complicated. The American philosopher Charles Sanders Peirce (1839-1914) made a thorough study of relations and discovered several interesting properties that different relations have. For instance, he noticed



ARENDT  
ARMSTRONG  
AUSTIN

that the marriage relation is symmetric, for if  $x$  is married to  $y$ , then  $y$  is married to  $x$ , where the relation 'loves' is not as many young people learn to their dismay. A relation such as ' $x$  is the mother of  $y$ ' is irreflexive, because 'if  $x$  is the mother of  $y$ ,  $y$  is not the mother of  $x$ '. A reflexive relation, by contrast, is one which  $x$  bears to itself: the commonest examples are 'identical with' and 'equal to'. 'Cicero is Tully' and ' $2 + 2 = 4$ ' are instances of these relations. The relation 'loves' is at times reflexive as in 'Narcissus loves Narcissus'. There are several other properties of relations that are known to logicians, but these will provide the reader with a sample. Relations were to prove of central importance as logic was revealed to be the foundation of arithmetic.

The rapid development of a logical calculus led at the end of the nineteenth century to the discovery of a set of axioms for the arithmetic of the natural numbers. The natural numbers, also called the finite cardinals, are those we learn to count with as children; they bear no signs, so the only operations that can be performed on them are addition and multiplication (which is repeated addition). Subtraction requires the signed integers, and division requires real numbers that include fractions. An axiom set is fashioned around a set of undefined terms and logical terms. Giuseppe Peano (1858-1932), an Italian mathematician, began his quest with three undefined terms, 'zero', 'number' and 'successor'. Of course he thought of these terms in the usual senses, but in his axioms they are understood as undefined. Thus, the axioms hold for any set of meanings that make all five axioms true. The Peano axioms are these: (1) Zero is a number; (2) The successor of any number is a number; (3) Zero is not the successor of any number; (4) No two numbers have the same successor; and (5) Any property that belongs to

3 zero and also to the successor of any number having the property belongs to all numbers. The last axiom is also known as the principle of mathematical induction. All of the words in these axioms with the exception of the undefined terms are logical terms, including 'two' in 'two numbers' which is represented by 'x and y are numbers and  $x \neq y$ '. Peano went on to prove the basic theorems of arithmetic such as ' $2 + 2 = 4$ '. He published his set of axioms in a pamphlet entitled *Arithmetices Principia, nova methodo exposita* (1889).

Peano's work led others to attempt to find logical definitions of his undefined terms. The British philosopher and logician Bertrand Russell (1872-1970) held the view that, if definitions of these terms could be fashioned using only logical terminology that would show that arithmetic was a branch of deductive logic. He noticed that we apply numbers to classes (or sets), to things of which the same predicate is true, for instance, all of the pupils of which it is true to say 'x is in fourth grade' will yield the class of fourth-graders. The number two, for instance, is applied only to pairs, and indeed twoness seems to be the only property that pairs have in common. The basic idea is a one-to-one correspondence. When we count the members of a class we put the numbers into a one-to-one relation with its members. It may appear that we are using 'one' in its numerical sense here, but a one-to-one correspondence can be defined without using 'one': A relation is said to be one-one when, if x has the relation to y, no other terms x' has the same relation to y, and x does not have the relation to any y' other than y. The marriage relation in monogamous societies is such a relation; there are the same number of wives as husbands. The next step in defining 'number' is to introduce the notion of a similar class: a class B is said to be similar to a class R if there exists a one-one relationship between the members of B and those of R. Husbands and wives form similar classes in monogamous societies. Similar classes have the same number of members, making it easy to form the class of all pairs, the class of all triplets, etc. We can now define 'the number of a class': the number of a class is the class of all those classes that are similar to it. From this definition it follows that two is the class of all pairs; three is



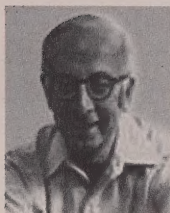
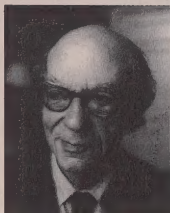
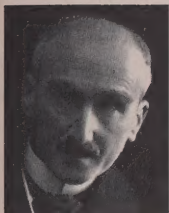
AYER  
BAIER  
BAIN

the class of all triplets, etc. What about 'zero'? There is a null or empty class, so zero designates the class whose sole member is the null class. 'Number' itself can now be defined: a number is anything that is the number of a class. Although it may appear circular it is not. This can be seen by substituting the definition of 'the number of a class', the definition then reads: a number is anything which is the class of all those classes that are similar to it. It turned out that the successor relation is a special case of the ancestral relation, the relation used in constructing family trees. With its definition, too technical for this brief essay, all of Peano's primitive terms had been defined in purely logical language. After he had completed his definitions, Russell discovered that Frege had given virtually the same definitions thirty years earlier. Both men are now jointly credited for defining these core notions of arithmetic.

One point continued to trouble Russell. The word 'the' occurs several times in the Peano postulates and also in the definition of number. It is clearly a term of logic, but there was no satisfactory way of working it into the symbolism being developed. The concern is with 'the' in its definite sense, meaning exactly one. 'The' can also mean 'all' as in 'the whale is a mammal' and Frege's universal quantifier deals with this sense as we saw above. To solve the problem of 'the' in the singular, Russell, in 'On Denoting' published in the journal *MIND* in 1905, considered such statements as 'the present king of France is bald' and 'the present king of France is not bald'. They seem to contradict each other, but if we made lists of bald things and non-bald things, the French king would not appear on either list. This led Russell to remark that Hegelians, who love a synthesis, will probably conclude that he wears a wig. But wit does not solve the problem. After much intensive

thought, he came to the conclusion that statements involving expressions like 'the present king of France', which he called definite descriptions, were really three statements in one: (1) There is at least one present king of France; (2) There is at most one present king of France; and (3) Whatever is a present king of France is bald. Clearly (1) is false and the other two true, but a single component of a conjunction renders the whole false, so 'the present king of France is bald' is false, and so is 'the present king of France is not bald'. Once he saw there were three statements, he was able to use the logical notation already in use to symbolize these statements:  $(\exists x)[Kx \ \& \ (y) (Ky \supset x = y) \ \& \ Bx]$  and  $(\exists x)[Kx \ \& \ (y) (Ky \supset x = y) \ \& \ \sim Bx]$ , the first of which is read 'There is at least one  $x$  such that  $x$  is a king of France and for all  $y$ , if  $y$  is a king of France then  $x$  and  $y$  are identical and  $x$  is bald'. Russell regarded his analysis of definite descriptions as his most important achievement.

The important role that classes played in the definition of number led Russell to think deeply about them, and he made a most unwelcome discovery. He noticed that some classes can be members of themselves and others not. For example, the class of bicycles is not itself a bicycle, whereas the class of abstract ideas is itself an abstract idea, and therefore a member of itself. He considered the class of all classes that are *not* members of themselves—he called these ordinary classes—which he labeled  $O$ . He then asked whether  $O$  was a member of itself or not. If  $O$  is a member of  $O$ , then it is not a member of itself (since all members of  $O$  are ordinary classes); and if  $O$  is not a member of  $O$ , then it is a member of itself (for the same reason). It follows that  $O$  is a member of  $O$ , if and only if,  $O$  is not a member of  $O$ . A flatter contradiction is not possible. This paradox, called 'Russell's paradox', caused turmoil amongst logicians when it was published in his book *The Principles of Mathematics* in 1903; the chapter devoted to it is ominously entitled 'The Contradiction'. Frege wrote that the foundations of arithmetic were tottering. In a telegram to Russell, Alfred North Whitehead quoted Robert Browning's 'The Lost Leader': 'Never glad confident morning again!' What was the reason for the consternation? Very simply this: all logicians had assumed that every predicate formed a class; thus, the things that make 'x



BERGSON  
BERLIN  
BLACK

is a bicycle' true form the class of bicycles. If the very notion of class is contradictory, then how can one be sure that the classes one forms are free of contradiction? What was to be done to save logic?

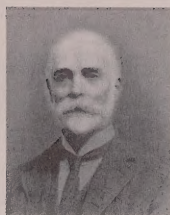
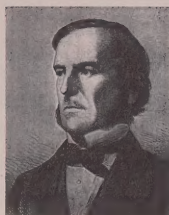
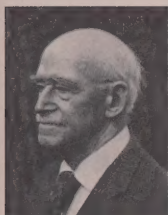
Russell recalled from his childhood reading of the King James version of the Bible that in the Epistle of Paul to Titus Paul wrote: 'One of themselves, even a prophet of their own, said, The Cretans are always liars, evil beasts, slow bellies. This witness is true.' This seems clearly paradoxical, for 'all Cretans are liars' is true just in case its false, and false just in case it's true. This paradox, which is similar to Russell's, gave him an idea for a solution. Both paradoxes involve self-reference. The Cretan case restated is this: all statements made by Cretans are false. This proposition is about the several statements made by Cretans, and is therefore at a higher level of language than the statements themselves that are concerned with the business of life. Russell called this higher level the metalanguage. So when a Cretan says 'it is raining' on a sunny day, he or she can be corrected by stating "it is raining" is false'. The predicate 'is false' (and also 'is true') first occur in the metalanguage and never in the object language, which is the lowest level. Once levels of language are introduced, the Cretan paradox, also called the paradox of the liar, vanishes. St. Paul, who had no interest in logic, cited the paradox as evidence of the wickedness of the Cretans and ordered that they be rebuked.

Russell proposed as a solution to his paradox a similar hierarchy, which he called the theory of types. The lowest level comprises individual things, such as swans, etc; the next level is composed of classes of individuals, the class of swans, etc., the next, classes of classes of individuals, the class of birds, for instance, of which the class of swans is a

subclass, and so on. Numbers are classes of similar classes, so they first appear in level three. Having this hierarchy it is impossible to form Russell's class O, because there is no highest level, and even if there were, one could only group the classes in the next lower level, one cannot include all the classes in all the lower levels. Needless to say, this restriction on the notion of class, required that theorems in logic and arithmetic be stated with the appropriate restrictions included as conditions. The paradox had complicated matters considerably. Other logicians proposed different solutions to Russell's paradox, and a vast literature grew up on the topic.

4 Having solved these preliminary problems to his satisfaction, Russell proposed to his former teacher, Alfred North Whitehead (1861-1947), who had just published the first volume of a big book, *A Treatise on Universal Algebra, with Applications* (1898), which aimed to systematize the subject, that they work together to write a formal proof that mathematics was a branch of logic. It took them a decade to finish the work, which was published in three large volumes beginning in 1910 and ending in 1913. In conscious emulation of Newton's great work, they called it *Principia Mathematica*. This monumental work, which started with purely logical axioms and proved theorems in many branches of traditional mathematics, firmly established the importance of the new symbolic logic. There was to be a fourth volume, written by Whitehead alone, which would have brought geometry into the system. This final volume never appeared, and whatever manuscript existed was burnt by Mrs. Whitehead after her husband's death; she was, she claimed, merely carrying out his wishes.

5 Since the appearance of *Principia Mathematica* deductive logic has continued to be developed in several directions. One of the first to develop some of its ideas further was Russell's pupil, Ludwig Wittgenstein. His first attempt was simply entitled 'Notes on Logic'. It so impressed Russell that he asked for permission to use it in a seminar he was scheduled to teach at Harvard University in 1914. The exhibited typescript is thought to be that which Russell had made in September 1913 and took with him to Harvard.



BLANSHARD  
BOOLE  
BOSANQUET

Modal logic, which introduced operators for necessary and possible, resulted from the pioneering work of C. I. Lewis (1883-1964), an American logician. His *A Survey of Symbolic Logic* (1918) was in part a criticism of the work of Whitehead and Russell for relying on if-then in the material mode as the meaning of 'implication'. The trouble, Lewis argued, is that 'if p then q' is true if p is false regardless of q's truth value. It follows that a false proposition materially implies all propositions. As a remedy Lewis introduced what he called 'strict implication' which requires that the conditional statement 'if p then q' be necessarily true. Essentially, this is the 'therefore' sign in a valid deductive argument. 6

Others developed systems of temporal logic and three-valued logic. The latter, in addition to true and false, included an intermediate value in the definition of the basic logic operators. Symbolic logic became a staple in undergraduate education and a vast literature grew up as an army of logicians made their contributions or merely wrote up again what had been established in the field. Among those who advanced our knowledge of the subject two Americans are prominent, Willard Van Orman Quine (1908-2000) and John Barkley Rosser (1907-89). Quine published several books in which he presented the subject in novel ways. One of these books, *Mathematical Logic* (1940), contained a subtle inconsistency that Rosser famously brought to Quine's attention. 7

During the 1920s and 1930s a large school of mathematical logicians grew up in Poland. Their work had a profound impact on the philosophers of the Vienna Circle. One of the innovations resulting from their work was what is called 'Polish notation'. Invented by Jan Lukasiewicz (1878-1956), it is a way of writing the formulas of the propositional

calculus without using parentheses. For example, the conditional,  $p \supset q$ , is written  $Cpq$ , and the negation of  $p$  is simply  $Np$ . By establishing an order among the connectives, he was able to write formulas that were unambiguous. Other important members of the Polish school were Stanislaw Lesniewski (1886-1939) and Alfred Tarski (1901-83). Unfortunately, the outbreak of war in 1939 caused the group to break up. A few like Tarski managed to escape to the West, but others it is feared became the victims of Nazi atrocities.

8 In 1931 an Austrian logician, Kurt Gödel (1906-78) published a paper 'Über formal unentscheidbare Sätze der *Principia Mathematica* und verwandter Systeme I' that caused great consternation amongst logicians. Its English translation is entitled '**On formally undecidable propositions of *Principia Mathematica* and related systems**' (1962). In it Gödel proved that a logical system powerful enough to prove theorems in the arithmetic of natural numbers, such as ' $2 + 2 = 4$ ', cannot be both consistent and complete. If it is consistent (i.e. does not lead to a contradiction), then there are propositions involving natural numbers that can be neither proved nor disproved as theorems in it. If every such proposition can be proved, then the system is inconsistent. His proof has been scrutinized by generations of logicians and found to be sound. Plato's (and the young Russell's) dream of a grand deductive system in which every true proposition is either an axiom or a theorem derived from the axioms turns out to be an illusion. Gödel's theorem has had a profound effect on all subsequent work in logic.

JGS

## METAPHYSICS

F. H. Bradley, one of our most distinguished metaphysicians, notoriously described metaphysics as 'the finding of bad reasons for what we believe upon instinct.' Metaphysics has always been a core part of philosophy, although, from time to time, some philosophers have attacked its very possibility. The term 'metaphysics' seems to have originated when Aristotle's writings were rediscovered in the century before Christ, and their editor organized together certain books and placed these after Aristotle's works on nature, giving them the name *meta ta physica*, literally *after* the things on nature. Despite this somewhat serendipitous coining of the term, for most commentators these books do seem to have a unity. Further the topics that they concern have been those over which most metaphysicians have continued to labour. For example, metaphysicians have argued that beyond what we know from the specific natural sciences we can meaningfully characterize the nature of reality—or Being—as a whole. Famously, some have held that the ultimate nature of the Real is mental and not physical, despite appearances to the contrary. Some metaphysicians have believed that they could establish truths about the supersensible, that which lies beyond the world of experience. Some have characterized metaphysics as a science that deals with presuppositions or principles, in particular those that underlay all knowledge or science, for instance that all events must have a cause or that nothing exists without a reason for its existence.

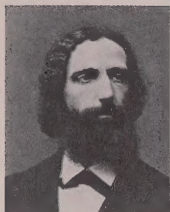
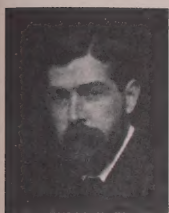
In the period with which we are concerned, metaphysics has had some of its staunchest and interesting defenders, as well as some of its most heated detractors. The disdain of the latter for metaphysics was grounded in the growing success and esteem of natural science, the

methods and outcomes of which were seen as a model for *all* legitimate claims to knowledge. In what follows, we will focus on the former, that is the advocates, as the detractors are well represented in other exhibition cases on logic, epistemology, and philosophy of science.

F.H. Bradley (1846-1924) was educated at University College, Oxford. Despite the fact that he surprised everyone by obtaining only a second in *literae humaniores* ('Greats'), he was elected to a life fellowship of Merton College in 1870. Because of a kidney ailment that emerged soon after, Bradley did not teach and had few academic contacts within the University, other than those that occurred through writing. The appeal of his ideas was due to both the growing interest in Hegelianism, of which Bradley was only a partial advocate, and his fluid literary style. The conditions of his fellowship allowed Bradley to retain it and his Merton rooms until his death over fifty years later. He was the dean of the British Idealists, indeed, Bradley was widely held to be the greatest English philosopher of his generation, a reputation that did not long survive the critical onslaught of Russell and Moore. He received the Order of Merit in 1924, the first philosopher to do so.

- 9 Bradley's *Appearance and Reality* (1893) was preceded by important studies in ethics and logic, however, it is this book for which he is best known today. Its object was to give a general account of Reality. Using various logical arguments that exposed the many 'contradictions' of our experience, Bradley argues that Appearance is unreal. Plurality is illusory, and Reality is a single unity, the 'parts' of which, properly understood, are necessarily tied to each other by their 'internal' relations. Because no term can be understood apart from its relations, a completely true statement about anything would involve everything. Reality must therefore have a unity beyond relations, it must be undifferentiated or Absolute, comprehensive and self-consistent. Furthermore, the one Reality consists in experience, but not the experiences of any given individuals. This monistic Reality, Bradley characterizes as being both spiritual and good.

Josiah Royce (1855-1916) was raised in a small gold mining town, Grass Valley, California. He graduated from the recently founded



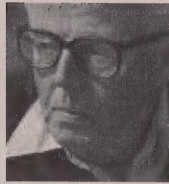
BRADLEY  
BRENTANO  
BROAD

University of California in 1875, then obtained a traveling fellowship that allowed him to go to Europe, where he heard the lectures of Lotze, Wundt, and Windelband. In 1878, he received his doctorate from Johns Hopkins, after which he spent four years teaching in Berkeley, before obtaining a position at Harvard, originally as a one-year substitute for William James, but eventually as a professor. Like Bradley, Royce is usually characterized as an absolute idealist. For Royce, the Absolute is a universal knower or consciousness, God, who affirms all judgments and experiences all objects. Reality is the idea of a mind, and monistic because there is but one such mind. These ideas were first developed in his *The Religious Aspect of Philosophy* (1885) and *The Conception of God* (1897), but they are most fully worked out in his Gifford Lectures, published as *The World and the Individual* (1900-01). There Royce 10 examines four ways in which an idea can be said to relate to its real object, opting for the view that all ideas are purposive and that they relate to a reality that fulfills that purpose. In the end, that purpose can only be completely fulfilled in the Absolute. In a later work *The Problem of Christianity* (1913), thought by some to be Royce's greatest, his idealism is altered to now place emphasis on our membership in an ideal beloved 'interpretive community' as the source of purpose.

While the metaphysics of Bradley and Royce are idealist, Samuel Alexander (1859-1938) was a realist, though of an unusual kind. Alexander was an Australian, educated there and at Oxford, where he distinguished himself in 'Greats' and obtained a fellowship at Lincoln College in 1882. It is noteworthy that he was the first professing Jew to hold either an Oxford or Cambridge fellowship. In 1893 he was appointed to the chair in philosophy at what is now the University of

II Manchester. His *Space, Time, and Deity* (1920) is his principle work. Alexander was more concerned than his predecessors that his philosophy be informed by the findings of the empirical sciences, and its shape shows the influence of evolutionism, modern physics, and the findings of experimental psychology. He held that knowledge consisted in the 'compresence' of a mental act and an object which was mind-independent. As a realist, he held that objects of knowledge are neither modified nor constructed by our minds or, indeed, any Mind. Further, mental acts and their objects are not two distinct types of substance. Space-time is the basic stuff of the universe from which evolve the qualities of matter, then life, and finally mind, or consciousness. These qualities are 'emergent' and each stage evolves when the former has reached sufficient complexity. Deity is that which has not yet fully emerged—the unrealized. Thus the world or reality contains within it a striving towards God. Alexander had almost no followers, despite which he was highly respected. Indeed, he was the recipient of five honorary doctorates, including from Oxford and Cambridge, and he is one of only six philosophers to have been awarded the Order of Merit.

12 John McTaggart Ellis McTaggart (1866-1925) was educated at Clifton and then at Trinity College, Cambridge where he obtained a first in Moral Sciences in 1888. In 1891 he became a fellow of Trinity where he remained the rest of his life, becoming a much-loved fixture of College life. McTaggart made a detailed study of Hegel, which resulted in three published commentaries (1896, 1901, 1910) before he wrote his own major work, *The Nature of Existence*, which appeared in two volumes in 1921 and, posthumously, in 1927. He developed his own unique form of personal idealism. Unlike the absolute idealists who saw reality as a monistic Absolute, McTaggart, in contrast, maintains an ontological individualism, insisting that reality is composed of many timeless, perceiving selves or spirits. Reality he argues could ultimately only be understood as consisting of love, which binds together in a perceptual community selves who know and love each other eternally. Spirits not only will enjoy immortality, they have also preexisted eternally. We can



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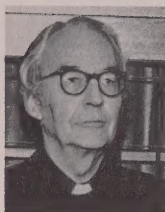
look forward to an awareness of others, true community, where our perception of other selves will be like the clear, distinct, immediate perception given in self-awareness. Material objects are, however, unreal, being divisible into parts, unlike selves. His system has no need for God, and he also argued that time, as usually understood, is unreal. To defend his strikingly odd beliefs McTaggart developed ingenious and detailed arguments, some of which, e.g. that for the unreality of time, continue to both attract and puzzle philosophers who are otherwise dismissive of his metaphysics.

Not all metaphysicians are idealists or realists of a highly speculative bent, such as Alexander. For example, the pragmatist John Dewey (1859-1952) developed a naturalistic metaphysics in *Experience and Nature* (1925), which is considered by some to be his *magnum opus*. Dewey began his philosophical career as a Hegelian idealist, but was converted to naturalism in part due to his work in psychology and because of his esteem for the successes of scientific practice. Experience provides the basis for metaphysical inquiry, as it is our lived experience that reveals to us the features of the natural world. That experience is not solipsistic but shared with others, and it is not limited to our experience of knowing, which Dewey thought philosophers emphasized too much, but includes feeling and acting. What is revealed to us in experience is a reality that is both ordered and disordered, we cannot dismiss the latter in our desire for the former. There are no sharp breaks in nature, but different characteristics emerge at progressive levels, culminating in human experience. Reality is not a world of changeless Being, but of becoming. We experience events both in their immediacy and as part of a temporal process, for instance, when something is seen

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in terms of its usefulness in predicting or controlling other events. Mind emerges in such shared acts of interpretation where we explore and develop the possibilities open to us. Ideas emerge as part of conscious experience—our interaction and transformation of the world—and knowledge is an instrument for directing change. Indeed, meaningful experience, most clearly seen in art where intelligent control is used to secure a fulfilling end, is what gives life its significance. Blessed with prolific energy, a long life, considerable charm, and a philosophy that spoke naturally to the practical character and needs of his fellow countrymen, Dewey was for many years the *doyen* of American philosophy. From small town grocer's son to Columbia University professor and educational pioneer, his was a life's work that confirmed the optimism of what now seems a vanishing America.

14 Alfred North Whitehead (1861-1947) studied and then taught mathematics (which included physics) at Trinity College, Cambridge. Keynes and Russell were among his students, and the latter became his collaborator in writing *Principia Mathematica*. In 1910, he left Cambridge to teach mathematics in London and then, in 1924, he accepted a chair in philosophy at Harvard, a switch in disciplines that reflected a change in Whitehead's interests that had begun perhaps two decades before. In addition to his early work in mathematics and logic, in his middle-period he produced important work in philosophy of science. After Whitehead's move to Harvard he continued to write on a variety of problems, however, his central activity was speculative metaphysics and *Process and Reality* (1929), his Gifford Lectures, is the major result. Like Dewey, Whitehead thought that philosophy had been improperly dominated by epistemology, with the consequence that it usually ended in scepticism. To avoid this one must replace the substance metaphysics of Descartes—a dualism of mind and body—with a different fundamental category, the 'actual occasion', which is a *process* of becoming. Whitehead develops his metaphysic, with its nine categories of existence, using a highly novel and technical vocabulary that precludes its explanation in brief compass—indeed, one very sympathetic commentator has written that 'the problem is that he



COHEN  
COLLINGWOOD  
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wanted to say in highly precise terms that reality is ultimately vague? However, the gist is that reality involves a self-creating process where material is selected and developed until the result too becomes material for a next generation of self-created existents, and so on. In effect, reality taken as a whole is seen on the model of a living organism that constantly replaces its own fabric, thus renewing and changing itself. Whitehead, who received the Order of Merit in 1945, is almost alone among twentieth-century metaphysicians in having had considerable influence, spawning not only process philosophy but process theology.

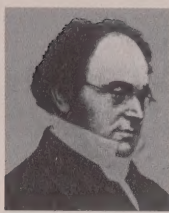
Our next metaphysician is a personal favourite of this author. Brand Blanshard (1892-1987), an American who studied at Merton College, Oxford, as a Rhodes Scholar and who was Sterling Professor at Yale, is usually typecast as an idealist and he was significantly influenced by the absolute idealists, however, he never characterizes the real as either mental or a mind-created entity. Rather, like Spinoza, from whom he draws his central inspiration, he holds to the view that reality must be characterized under *both* the attribute of extension and that of thought. *The Nature of Thought* (1939) is the most important of his eight books. Blanshard's most fundamental *presupposition* was that reality is ultimately intelligible although this is something that he did not think one could prove. Furthermore, he believed that reality had an inherent logical structure that was accessible to reason, which faculty was the chief source and test of knowledge. As well, he believed that the parts of reality are linked by logical necessity and that none could be different without all the others being different—that is, he maintained the doctrine of internal relations. Causes logically necessitate their effects and everything that happens is strictly determined. Given

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sufficient knowledge we could logically deduce an effect from prior knowledge of its cause. There is a drive in human nature towards understanding the whole, in which each thing is seen as part of an all-inclusive order. However, that goal is ideal—we shall never reach it. Thought is purposive in that it seeks satisfaction in an explanation that would allow inquiry to come to rest were thought to obtain its goal. ‘Truth is the approximation of thought to reality. It is thought on its way home. Its measure is the distance thought has traveled, under guidance of an inner compass, toward that intelligible system which unites its ultimate object with its ultimate end.’ Thought is only satisfied by the apprehension of necessity, that is, when we see that something not only is so, but must be so.

None of the preceding metaphysicians were ‘analytic’ philosophers, that is, members of the various schools of thought that have generally dominated Anglo-American philosophy since the end of World War I. Indeed, the major schools, logical positivism, ordinary language philosophy, conceptual analysis, and so forth were quite disdainful of metaphysics until recently. There was one problem, however. Doing philosophy in even its more ‘respectable’ branches so often seemed to require making and revealing one’s metaphysical commitments. How then could one do metaphysics in a ‘respectable’ way, without indulging in the speculative fancies of people like Bradley or Whitehead?

One answer was that of Peter Strawson (1919–2006). After studying PPE (Philosophy, Politics, and Economics) at St. John’s College, Oxford and wartime service Strawson returned to Oxford in 1947, where he ultimately was Waynflete Professor of Metaphysical Philosophy from 1968 to 1987. If Dewey was the *doyen* of American philosophy between the Wars, Strawson had a similar status as the most prominent ‘linguistic’ philosopher in Britain from the 1960s until his retirement, such status having been recognized, for example, by a knighthood in 1977. In 16 *Individuals: An Essay in Descriptive Metaphysics* (1959), the second of his several books, Strawson distinguished between what he called ‘revisionary’ metaphysics and ‘descriptive’ metaphysics. He did not dismiss



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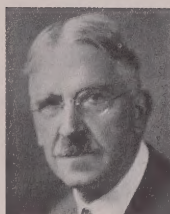
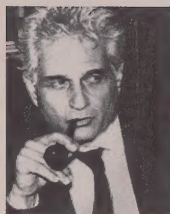
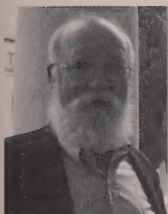
the value of the former, however, he asserted that it aimed to replace the 'actual structure of our thought about the world' with something better, whereas descriptive metaphysics was content to discern from an analysis of how we actually describe the world certain fundamental, unchanging features of our 'conceptual scheme'. Descartes and Berkeley were revisionary, in his view, whereas Aristotle and Kant were descriptive. Strawson employed the techniques of conceptual analysis, and thought-experiments, to argue that the *most* basic particulars could not be sense experiences, as some empiricists had maintained, or physical particles, as materialists had held, but rather must be persons and material bodies respectively. The ability to identify the latter is critical to our being able to identify other particulars. Our being a person—that is, our ability to conceive of ourselves as something to which predicates involving *both* consciousness and corporeality are appropriate—requires that one also be able to ascribe conscious states to others.

FMW

## ETHICS

Ethics is one of the oldest branches of philosophy. Socrates, Plato, and Aristotle were all fascinated by the question, 'What constitutes the good life for human beings?' Socrates, in the early Platonic dialogues, was especially vigorous in challenging his interlocutors to defend their opinions and their actions. He justified his questioning by his belief that 'the unexamined life is not worth living'. And when he was told that he could avoid execution if he would only stop talking, he refused on the grounds that he had a divine duty to awaken Athenians from their dogmatic slumbers. Plato linked ethics with metaphysics by his theory of Forms, arranged in a hierarchy with 'the good' at the apex. All the other forms participated in it to the extent that they represented perfect paradigms of their various kinds. Ordinary objects, like apples and carrots, participated in their forms, the perfect apple and the perfect carrot, to varying extents, but, despite the claims of contemporary supermarket managers, they never achieve on earth the perfection of their transcendental forms. Aristotle advanced the idea of the golden mean as the guide to the good life. Humans should aim at cultivating positions between two extremes, for instance, courage lies somewhere between timidity and foolhardiness. Reason must be used to situate it. For all the Greeks the virtues were central to their thinking about ethical questions.

Many of the centuries between the ancient Greeks and the nineteenth century were dominated by thinkers with other-worldly concerns. Much emphasis was placed on living a life that would be rewarded after death with an eternal and perfect existence. Duty came to be central to ethics. What one ought to do became a central concern of the community, and those who failed were often treated very harshly



DENNETT  
DERRIDA  
DEWEY

in the name of love as their tormentors, perhaps hypocritically, claimed. Lists of rules were drawn up and enforced. Most of them, like those in the Ten Commandments, prohibited certain actions. Despite being professedly Christian, the authorities did not pay much attention to the kinder set of prescriptions attributed to Jesus of Nazareth in the Sermon on the Mount.

As the so-called 'Dark Ages' waned critical thinking about ethical issues emerged and a number of philosophers, among them David Hume and Immanuel Kant, reinvigorated the subject. Hume argued that there was a chasm between statements involving 'ought' and those involving 'can', a position that became central to discussion in the nineteenth and twentieth centuries. 'Ought', he argued, does not imply 'can'; that one ought to do X does not imply that he or she can do it. Kant is famous for his contention that for an act to be morally acceptable its maxim had to be capable of being universalized—i.e. apply to all in similar circumstances. In other words, only universal moral laws are acceptable as ethical guides. He called this 'the categorical imperative'. Others examined these writings, some agreeing and some disagreeing. It was clear that ethics was once again a vital part of philosophy.

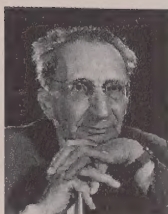
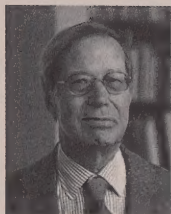
Our period begins with the publication of Henry Sidgwick's *The Methods of Ethics* in 1874. Sidgwick (1838-1900) was a Cambridge don who had confronted an ethical dilemma in his personal life. When he accepted a fellowship at Cambridge, he had signed the Thirty-nine Articles of the Church of England, as was required by law of everyone in a similar position. As the years passed he began to doubt and then reject the content of some articles and found himself adopting a bare theistic set of views far removed from the strict Calvinism of the

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Thirty-nine Articles. Should he resign his fellowship? After much anguished thought he decided that it was his duty to do so. He wrote a pamphlet, 'The Ethics of Conformity and Subscription' (1870), setting forth his arguments. Fortunately, in 1871 the British Parliament voted to terminate the requirement that all members of the universities had to sign the articles. Sidgwick's pamphlet was cited in the debates.

*The Methods of Ethics* was inspired by his belief that ordinary moral thinking was confused because various methods were used with the result that different thinkers could arrive at different conclusions regarding the same moral problem. By a 'method of ethics' he meant 'any rational procedure by which we determine what individual human beings "ought"—or what it is "right" for them—to do, or seek to realize by voluntary action'. He finds three methods worthy of his consideration: rational egoism, dogmatic intuitionism, and utilitarianism. The first states that an agent is rational if and only if she seeks to maximize her own happiness. Dogmatic intuitionism is the view that certain actions are right and reasonable with little or no consideration of their consequences. Utilitarianism holds that an agent acts rightly if and only if he performs that action out of those open to him which maximizes the happiness of all those in the relevant population. All three methods are used by ordinary people, sometimes singly and sometimes together, which results in moral confusion. The principal argument of his book is that dogmatic intuitionism and utilitarianism can be reconciled, because utilitarianism itself rests on a set of fundamental intuitions. In his view rational egoism and utilitarianism are plausible rivals which leads him to claim a duality of practical reason. There is, of course, much more to the argument of the book than that presented here. His many detailed arguments have had almost as much influence on later moral philosophy as his core thesis. C. D. Broad in 1930 hailed Sidgwick's book as 'on the whole the best treatise on moral theory that has ever been written, and to be one of the English philosophical classics'.

18 Sidgwick's defense of utilitarianism did not sit well with F. H. Bradley, the reclusive Oxford don. His *Ethical Studies* came out in 1876.



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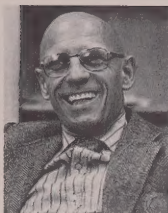
In writing the book Bradley intended to expound what he took to be the ethical position to be derived from Hegel's works as an antidote to the utilitarian philosophy of Jeremy Bentham (1748-1832), John Stuart Mill (1806-73), and Sidgwick. Bradley represented the utilitarian position as hedonistic and argued strenuously against it. To be fair, the utilitarians held that happiness was the ultimate good, but that pleasure was only a part and not the whole of it. Bradley's own candidate for the ultimate good is self-realization. He examines a number of ethical theories and finds something in each of them that is worth retaining. For instance, he rejects Kant's notion that duty should be done just for its own sake, but that it is all right to hold that individual duties should be carried out provided the sense that we should do them arises from their own natures and not from some abstract principle. As to what constitutes self-realization he is less than fully forthcoming; its nature remains vague. At the end of the book he introduces the notions of the good and bad self and claims that there is an intimate connection between the two. Since morality must depend upon evil in order to realize good, it is self-contradictory. The ideal self cannot be realized in morality, but, he hints, it might be possible in religion. Running throughout the book is the theme that common-sense morality is unaffected by moral philosophy.

Bradley's position was severely criticized by Sidgwick in a review; he judged its argument to be on the whole uncritically dogmatic. His notion of self-realization was not developed sufficiently to fill the role that Bradley assigned it. Sidgwick could find nothing in the book with which he could sympathize. Bradley replied by writing, and issuing privately, a pamphlet, *Mr. Sidgwick's Hedonism*, in which he harshly

attacks just about everything Sidgwick had argued for in his book. His argument against Sidgwick appears to be an exposition of his position that it is not the business of morality to tell us what we ought to do in particular situations, because moral philosophy 'has nothing to do with practice'. This controversy was only the first of the many that Sidgwick's views stirred up in the coming decades.

19 One of Sidgwick's star pupils at Cambridge was G. E. Moore (1873-1958). Moore adopted one of his teacher's habits and exploited it for the rest of his life. Sidgwick was fond of demanding from those in discussion with him: 'What do you mean by x?', where 'x' was some word they had just uttered. Moore brought the same persistence to his work in ethics. *Principia Ethica* (1903) introduced into ethics the techniques of analytic philosophy. It is the business of ethics to discover the qualities that make things good. Thus someone might claim of some action or thing that it gave her pleasure, and was therefore good. Moore found no difficulty in this. Where he parted company with others was when they claimed that since pleasure is good, 'good' means 'pleasure'. He rejected this and all similar arguments as giving the analysis of 'good'. It always made sense in such a situation, he insisted, to ask the question, is pleasure good? And it is not the trivial question (is good good?) it would be if the two words meant the same. This is his famous 'open question argument'. Those who insist on defining 'good' in terms of some such quality as 'pleasure' are guilty, he charged, of 'the naturalistic fallacy'. 'Good' is a unique, indefinable, non-natural quality. The only definition that can be given for 'good' is by ostension, by pointing to various examples and asserting 'this is good'. He compared it to teaching a child the names of the various colours. Things are good because of the other qualities that they have. Good is of a higher order than naturalistic qualities like pleasure.

Moore's work, which was widely influential, shifted the attention of philosophers to the meaning of the central ethical terms. This study is called 'meta-ethics'. Normative ethics sets standards for behaviour and is best known for lists of rules, like the Ten Commandments. Meta-ethics, on the other hand, has nothing to do with human actions; it



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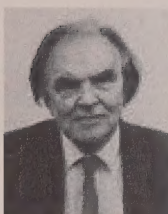
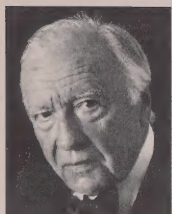
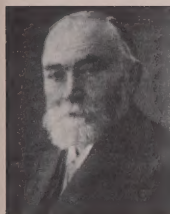
concentrates on giving analyses of the meanings of words like 'good' and 'bad' and 'right' and 'wrong'. Much of the subsequent work in ethics since Moore has concentrated on meta-ethical questions.

Not everyone was persuaded that 'good' was indefinable, even those who were convinced by Moore's open-question argument. Naturalistic definitions were out, but was some other sort of definition possible? A. J. Ayer in his famous *Language, Truth and Logic* (1936) suggested that it might be possible to define ethical terms using emotive meaning. When someone tells us that something is good, she is also recommending that we agree with her. There is an appeal to our emotional nature and not just our intellect. The American philosopher Charles Stevenson (1908-1979) who trained at Harvard and also in England under Wittgenstein and G. E. Moore taught for many years at the University of Michigan where I was his student. Stevenson took Ayer's suggestion and developed it into a full blown theory in two influential articles, 'The Emotive Meaning of Ethical Terms' (1937) and 'Persuasive Definitions' (1938). He expanded the theory in *Ethics and Language* (1944). Stevenson delineated two kinds of language, the cognitive and the non-cognitive. Cognitive language is used to state facts and to give reasons; non-cognitive language is used to express feelings and to influence others. Both uses are present when a person says 'x is good'; according to his theory of emotive meaning. What that person is saying can be expanded into 'I approve of x, do so as well'. Similar equivalences hold for the other core ethical terms. Definitions in ethics are intended to influence, hence, he called them 'persuasive definitions'. Stevenson's ideas were widely discussed in philosophical circles and generated a large literature.

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21 R. M. Hare (1919-2002) was a British philosopher who was confined for over three years as a Japanese prisoner of war. The harsh treatment he endured there led him to try to formulate a moral guide for himself and others in comparable situations. According to obituaries, he never let others read his prison writings. When he was released, he continued to work on ethical questions. After reading Ayer and Stevenson, he adopted a non-cognitive position, usually referred to as 'prescriptivism', which he gave to the world in *The Language of Morals* (1952). Hare distinguishes descriptive language from prescriptive language. The former is used to state the facts about things in the world; it has no imperative content. The latter does have both a commendatory and an imperative dimension. In his theory ethical terms have both descriptive and prescriptive meaning. Their descriptive meaning serves to convey data about the things the words are used to designate, whereas their prescriptive meaning commends the things for our approval. Hare is primarily concerned to elucidate the logic of ethical statements, and in search of clues he studied the logic of imperative statements. Turning then to value statements he found that their logic is very similar to that of imperatives such as 'close the door'. Both involve prescriptive meaning and cannot be reduced to descriptive meaning only. Once an agent has mastered correct moral reasoning, Hare thinks she will be led to embrace a form of utilitarianism. The arguments in his book are highly technical and resist summary. His philosophical readers found his work an unending source of ideas. His position marks a high point in the development of meta-ethics.

22 Kurt Baier (1917- ) was born in Austria and fled to England as the Nazis consolidated their power. From there he immigrated to Australia where he earned his first two degrees; his Doctor of Philosophy degree was awarded by Oxford University. Most of his teaching career was spent at the University of Pittsburgh. In *The Moral Point of View* (1958) he sought to return moral philosophy to its earlier tradition of describing and justifying guides for ethical behaviour. For too long this important part of ethics had been neglected as philosophers focused their attention of linguistic matters. The moral point of



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GEACH

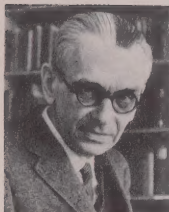
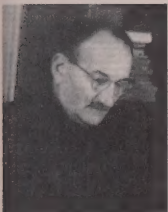
view is unique; the 'the' in his title underscores this, making it a Russellian definite description. A person who takes this viewpoint is committed (1) to not be egoistic; (2) to act on principles; (3) to be willing to universalize his principles; and (4) to consider the good of everyone alike in universalizing his principles. Moral rules are intended to be good for everyone, so they must be teachable, and that requires that they must involve only concepts familiar to all adults. Many of them prohibit certain kinds of conduct, like murder, torture, and rape. Morality does not demand that one perform those acts which have the best consequences. It follows that Baier is not a utilitarian. Other philosophers, including G. J. Warnock, J. O. Urmson and my esteemed teacher William Frankena, defended positions similar to his.

As a youngster in Baltimore, John Rawls (1921-2002) suffered a double tragedy. Two younger brothers, in successive years, caught an infectious disease from him and died—one from diphtheria, the other from pneumonia. Thoughts of the arbitrary unfairness of their deaths and his survival stayed with him and influenced his subsequent work. He trained at Princeton where he was greatly influenced by Norman Malcolm, a student of Wittgenstein. After advancing his ideas in several articles, Rawls brought them to full development in *A Theory of Justice* (1971) in which he resurrected the concept of a social contract but with some important differences. His contract was both hypothetical and non-historical. It amounted to a thought experiment. He considered a population in which each member was shielded both from himself and from the others by a 'veil of ignorance', that is to say they knew nothing about their situation in the society to which they belonged. Their task was to come up with a set of principles under

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which they would all be willing to live. He argued that, given that none of them would know their position under the contract, that the first principle they would all agree to was that 'each person is to have an equal right to the most extensive scheme of equal basic liberties compatible with a similar scheme of liberties for others.' Another principle he thought they would accept was that all offices and positions must be open all members, in other words that there must be equality of opportunity. Any inequalities must be arranged so that they are to the greatest benefit of the least advantaged in society. With these principles, Rawls thought that justice as fairness would be achieved. It would be hard to overestimate the influence his ideas have had on subsequent moral and political philosophy.

24 In 1958 Elizabeth Anscombe (1919-2001) published 'Modern Moral Philosophy' which, after sharply criticizing the theories of Immanuel Kant and John Stuart Mill as being too centred on obligations and duties resulting in rigid moral codes which were ignored by everybody, called for a rehabilitation of such moral concepts as character and virtue. Among those who followed her lead was Alasdair MacIntyre. He was born in Glasgow in 1929 and educated at the Universities of London and Manchester. For twenty years he taught in various British universities before moving to the United States in 1970 where he held positions at a number of universities, including Princeton, Yale, Notre Dame, and Duke. His influential study *After Virtue* (1981) examined a number of historical lists of virtues and found that not only did the names on the lists differ but the theories supporting them were incompatible with each other. That led him to conclude that what counted as virtues at a given time and place was determined to an important extent by the social context in which they arose. To understand why the ancient Greeks, for example, adopted the virtues they did one had to understand their societal arrangements and the beliefs they held in common. All we inherit from them are the names of the virtues and not their content. Virtues are community-related and can only be made sense of in that context. Modern life has lost this sense of community. We lack a common goal and have no consensus of what constitutes the good life. Con-



GILSON  
GÖDEL  
GOODMAN

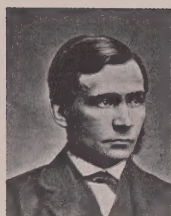
temporary moral philosophy is unable to furnish adequate and convincing reasons why we should perform one action in a given situation rather than another. The remedy for this bankruptcy is a return to a virtue-based ethics with necessary changes made to fit it into the modern community. With his work we are back at the Greek starting point, but with some important changes. This seems to be the way of philosophical thinking, always returning to its roots but with a little more light thrown upon them.

JGS

## EPISTEMOLOGY

It has been argued that modern philosophy has been overly dominated by epistemology ever since the publication of Descartes' *Discours de la methode* in 1637. That is to say, that philosophers' excessive concern with (a) how knowledge is derived and (b) what can be reliably known has stopped too many in their tracks before they could get on with solving other philosophical problems. In the broadest of terms, the debate has been between rationalists, for example Descartes, who have argued that the ideas of reason are the only reliable source of knowledge; and, in the other camp, empiricists, for example Hume, who have argued that sense experience is the primary source of knowledge. While the rationalists have been particularly impressed by mathematical deduction as a model of knowledge gained, the empiricists have been most impressed by the success of natural science. Both in their own way have been trying to answer the challenge of the sceptic, who points either to (i) the unreliability of sensation (e.g. illusion) or (ii) the disagreements among 'experts', when concluding that certain knowledge cannot be found.

In the early decades of the post-1870 period the rationalists dominated. Philosophers such as T. H. Green (1836-82), Bradley, and Royce reacted against the empiricism of thinkers such as David Hume and John Stuart Mill. Green skewered Hume in his book-length 'Introductions' to a collected edition (1874) of the latter's works. He stated therein that English philosophy since Hume had 'been unprofitable, because its representatives have persisted in philosophizing upon principles which Hume had pursued to their legitimate issue and had shown, not as their enemy but as their advocate, to render all philosophy futile.' It would be better, Green said, to use Kant and Hegel



GRAMSCI  
GREEN  
GRICE

as one's models. For Green and other British idealists, Mill's empiricism was a paradigm example of what was wrong with philosophy, as it even extended to Mill's developing a naturalistic account of deductive reasoning.

While Green's students, absolute idealists such as Bradley and Bosanquet, held the field for a generation, the next generation became increasingly sceptical of the epistemological claims and metaphysical commitments of idealism. Both G. E. Moore and Bertrand Russell had initially been sympathetic to the idealist position; however, beginning in about 1899 they reversed their position. Most famously, Moore did so in 'The Refutation of Idealism', a paper published in *MIND* in 1903. There he sets out to disprove the central idealist thesis that 'to be is to be perceived', without which, so he argues, idealism cannot be proved although it might yet be true. Russell's new views are stated in, among other places, his perennially popular *The Problems of Philosophy* (1912) and in *Our Knowledge of the External World as a Field for Scientific Method in Philosophy* (1914), which was originally delivered as the Lowell Lectures in March of that year in Boston. While the absolute idealists had contended that non-idealist accounts of experience were necessarily fraught with contradiction, Russell concludes on the contrary that 'the account of the world given by common sense and physical science can be interpreted in a way which is logically unobjectionable.' This, Russell argued, can be done by constructing matter out of sense-data and by giving the basic laws of physics a foundation of definitions derived from mathematical logic. Indeed, he gave the second lecture the title: 'Logic as the Essence of Philosophy'. He contrasts favourably a 'scientific method' in philosophy from those

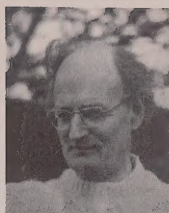
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approaches that ultimately resort to 'mysticism' in insisting that there *must* be a deeper, more satisfactory world behind that which science describes to us.

G. E. Moore moved beyond an attack on idealism to the advocacy of something to which the absolute idealists gave little respect: common sense. In 'A Defence of Common Sense' (1925) he asserts that he knows with certainty, for instance, that there are other living beings with whom he communicates. If one were to try to deny this, who is it that one is denying it to? Moore argues that there are a number of beliefs of this kind that we readily accept are part of the 'common-sense view of the world', and yet some philosophers while admitting this are still given to denying their truth. On what grounds can they rightly do so?

26 In '**The Proof of an External World**' (1939) Moore argues not from the obvious inconsistency between our theoretical beliefs and our practical ones, but rather from fact. How do I know that I now have two hands? Well, I can hold up one hand and then the other, and in each case say that 'here is one hand' and 'here is another'. But, Moore admits, there is a problem as to what kind of relationship there is between what we perceive and what we know. Is what we immediately perceive the hand, the surface of the hand, or sense-data that we interpret in either of the former ways? We don't all perceive the same sense-data, but we all seem to see the same hand. How can this be? However, the fact that we have difficulty in solving perplexities of this kind, Moore argues, is no reason to deny, as some philosophers have, that there are physical objects, such as hands, external to our (or another) mind's thoughts of them.

In 1911 a young Austrian, Ludwig Wittgenstein (1889-1951) came to Cambridge to study. He was born in Vienna, into a large, extremely wealthy, and highly cultured family, and received an early technical education there, before coming to England in 1908 to study aeronautical engineering. His interests changed to philosophy of mathematics and he went to see Russell on the advice of Frege. Russell quickly recognized his exceptional gifts and was captivated by his intense personality. With the onset of World War I he returned to Austria where he



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HAMPSHIRE  
HARE

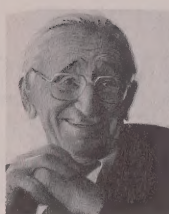
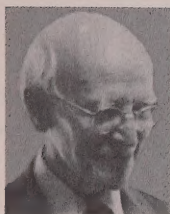
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served as an artillery officer before becoming a prisoner of the Italian forces. It was while he was in prison that he completed the *Logisch-Philosophische Abhandlung* (1921) or *Tractatus Logico-Philosophicus* as it was called when translated and published a year later in English. It is exhibited here in its scarce original form from the German journal *Annalen der Naturphilosophie*, in a copy that belonged to Herbert Feigl (1902-88), one of the initiators of the Vienna Circle. The *Tractatus* may be the most influential work in the history of twentieth-century philosophy. A very short book, it is written in a difficult and unusual style, being composed of short, hierarchically numbered propositions, which are not presented as a deductive argument but in a more oracular fashion. To this day, there are strong differences of opinion as to its interpretation, the mainstream seeing it as essentially a formal work on the philosophy of language and logic, and a minority taking Wittgenstein at his word that it is essentially an ethical work, outlining what could be said so that the ethical dimension of reality would, in contrast, be highlighted. In the *Tractatus* Wittgenstein presents a 'picture theory' of propositions, in which each stands in a one-to-one correspondence with a fact, or state of affairs, both having a common logical form. The world is the totality of facts so pictured. Complex propositions are truth functions of atomic propositions. In addition to what is captured in this way, there are tautologies of logic and mathematics that tell us nothing about the world, but which are useful in our explanation of it.

Wittgenstein believed at this time that he had said in the *Tractatus* all that could be said of importance in philosophy, and so from 1920-26 he taught school in Austria before designing a strikingly modern home

28 for his sister (1926-28). In 1927, he resumed philosophical discussions with certain members of the Vienna Circle, before returning to Cambridge in 1929, where he lectured (1930-36). It was during this time that he prepared notes in typescript that he allowed to circulate among his close students: the *Blue Book* (1934) and the *Brown Book* (1935). The exhibited copies belonged to Margaret MacDonald (1907-56) who was a research fellow at Girton College, Cambridge from 1934-37, and later the founder of the journal *Analysis*. The *Blue Book* and *Brown Book* are generally considered preliminary studies for the *Philosophical Investigations* (1953), which appeared posthumously. In the *Investigations* Wittgenstein rejected much of what he had confidently maintained in the *Tractatus*. Now language is seen as having a variety of social uses that he explores using the analogies of tools and games. Two sentences that may look ostensibly alike may yet be very different in their function. Each game has its own rules and criteria of success. This variety cannot be reduced to a single form. To understand a particular use of language we must understand the 'language game' within which it is being used. He maintains that most philosophical problems, including those of epistemology, arise as a result of our failure to notice such distinctions. Wittgenstein lived a largely solitary life in remote regions of Norway and Ireland for two years after he left Cambridge. In 1938, he again returned to Cambridge being named Professor of Philosophy the following year, in succession to Moore, a position he held until 1947. Most of the other published works of Wittgenstein that we read today consist of edited notes taken by students at his lectures or thematically edited works drawn from the mass of fragments that he left at his death.

29 John Dewey had a very different approach to attacking the problem of scepticism. In *The Quest for Certainty: A Study of the Relation of Knowledge and Action* (1929), his Gifford Lectures at Edinburgh, he maintains that philosophers in their 'search for the immutable' have impeded action by an unnecessary 'quest for certainty' that 'has always been an effort to transcend belief. However, because 'all matters of practical action involve an element of uncertainty' this has resulted in



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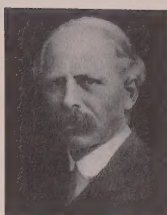
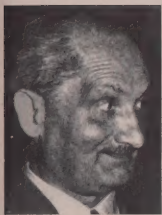
a separation between knowing and doing. Dewey rejects 'spectator' theories of knowledge—we don't just passively contemplate nature, he says; in living we are constantly changing nature. Knowledge emerges from our involvement with a problematic situation or experience, inquiry from our attempt to modify the situation to resolve the problem. We analyse a problem and develop means of dealing with it—means by which 'knowledge' is pursued. Knowledge *is* successful practice. Inquiry is a self-corrective process, and thought is the act of experimenting or trying something out—it is an instrument for action. However, thought is never fully satisfied because our frontiers of experience are always widening and we must remain open to the possibility that we must revise our knowledge.

Knowledge acquired through our senses, that is, perceptual knowledge, is obviously central to the question as to whether and how we obtain reliable or true knowledge of the world. Common-sense views are challenged by arguments from illusion: if we sometimes make mistakes in perception, how can we rely upon it? Various theories have been developed to explain what happens in perception and to counter such arguments. For instance, representational and causal theories argue that we don't perceive objects directly, but rather, are stimulated by them to have sense-data that form the basis of our perceptions. One of the most influential treatments of these questions was that of H. H. Price (1899-1984). Price was educated at New College, Oxford and taught at Oxford most of his career, ultimately being Wykeham Professor of Logic from 1935 to 1959. Although an Oxford man, Price visited Cambridge and was influenced by his contacts with Moore and Broad. In *Perception* (1932), the first of his four major works, Price

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argues that it is sense-data, which are distinct from brain events though normally connected with them, that are 'given' to us in perception. What are these sense-data? Price contends they do not belong to the object nor is the object identifiable with the sense-data with which it is associated. The 'family' of actual and possible sense-data that we and others do and might have is constructed by our minds. What we perceive consists of this family of sense-data *and* the material thing which is somehow responsible for it—the occurrence of sense-data is caused directly by processes in our own organisms and remotely by processes in the thing to which the sense-data belong. However, he insists, the world of things is discovered, not made, by our minds.

31 Roderick Chisholm (1916-99), who was educated at Brown and Harvard and who taught at Brown from 1947 until his retirement in 1987, was concerned about the residual potential for scepticism in a theory such as Price's, because we remain constrained in what we can say about material things other than that they have certain 'powers' in regard to Price's family of sense-data. Influenced in part by Moore, Chisholm believed that epistemological theorizing should begin with an acknowledgement that we *do* have knowledge of the world—in this instance, the issue is to show *how* perception is a source of justified belief and thus of knowledge. In *Perceiving: A Philosophical Study* (1957) he takes a somewhat phenomenological approach, drawing attention, as Brentano did, to the fact that our perceptions are 'intentional' in being directed to an object. As well, some of our confusions about perception arise from the language that we use to describe it; for instance, the background conditions for perception cannot be adequately stated in the language of sensations. Careful attention to how we apply our epistemic vocabulary shows we have more evidence for our perceptual beliefs than is often granted: 'we can describe conditions which are such that, for any hypothesis or proposition, if these conditions obtain then someone has *adequate evidence* for that hypothesis or proposition, or *knows* or *perceives* it to be true.' In the absence of defeating evidence, certain appearances are evident to us on internal



HEIDEGGER  
 HEMPEL  
 HOBHOUSE

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grounds. These views were further articulated as part of his *Theory of Knowledge* (1966), which had three editions, and in *The Foundations of Knowing* (1982).

An appropriate book to end this chapter on Epistemology is *Philosophy and the Mirror of Nature* (1979) by Richard Rorty (1931-2007), for Rorty criticizes the very idea that there can be a *theory* of knowledge. Some have characterized the book's purpose as advocating the 'death of epistemology', if not the 'death of philosophy'. 'The aim of the book is to undermine the reader's confidence in "the mind" as something about which one should have a "philosophical" view, in "knowledge" as something about which there ought be a "theory" and which has "foundations," and in "philosophy" as it has been conceived since Kant', Rorty wrote in the Introduction. The mind is not a mirror, as representational theories of knowledge, imply. Knowledge is, rather, 'a matter of conversation and of social practice, rather than as an attempt to mirror nature.' There should be no requirement that we get things 'right' about the world—that our ideas 'correspond' with reality. Rorty adds that his book 'like the writings of the philosophers I most admire [Wittgenstein, Heidegger, Dewey], is therapeutic rather than constructive.' In the place of epistemology (and philosophy) as traditionally conceived, Rorty recommends a form of pragmatism in which our interest is not to provide a 'foundation for knowledge' but to justify the formation of our beliefs as a social phenomenon—solidarity rather than objectivity. Our concern should be 'what it is better for us to believe' rather than chasing the chimera of obtaining an 'accurate representation' of reality. In some philosophy departments Rorty's insurrectionary ideas fell upon fertile ground that had already been well prepared by non-

objectivist schools of thought such as postmodernism and deconstructionism. Although he was widely read and much honoured (e.g. a MacArthur Fellow for 1981-86), some philosophers consider it fitting that Rorty moved in 1982 from a professorship in philosophy at Princeton to one in the humanities at Virginia and ultimately in 1998 to a professorship in comparative literature at Stanford.

FMW

## PHILOSOPHY OF SCIENCE

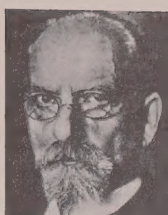
Laymen, when they first encounter the expression 'philosophy of science', are prone to assume that it refers to speculation based upon scientific results, extending these results into the far distant future. There is, of course, a vast literature that fits such an assumption, but almost none of its authors are professional philosophers. Instead these authors are educated people from various walks of life who happen to take an interest in the work of scientists and delight in drawing conclusions from their limited understanding of it. What is more they often make more money from peddling their speculations than the scientists who made the discoveries ever did. Their activities might be labeled the free enterprise side of science.

What professional philosophers understand by 'philosophy of science' is the study of the logic of scientific inquiry and the analysis of the meaning of some terms in common use among scientists. Scientists claim to be extending our knowledge of the natural world, and such a claim deserves close examination lest error creep in. Knowledge claims have always interested philosophers from the ancient Greeks to the present day. For the ancients deductive logic, and in particular the syllogism, was thought to be the basis of science. Other than Aristotle and a few other naturalists and the Greek astronomers, there was limited interest in the systematic gathering of facts about natural phenomena. It was not until after the Renaissance that science, as it is now understood, was practiced. Kepler (1571-1630), a German mathematician, using the accurate and comprehensive astronomical observations of Tycho Brahe (1546-1601), a Danish nobleman, was able to calculate the orbit of Mars around the sun. Their work confirmed the heliocentric theory advanced by the Polish

astronomer Copernicus (1473-1543) decades earlier. Kepler's work inspired the Italian polymath Galileo (1564-1642) to seek to confirm the Copernican hypothesis through a study of the moon and the other planets. His conclusions landed him in trouble with the Roman Catholic hierarchy who clung to the Ptolemaic theory that the earth was the centre of the universe.

When the pioneering work of Brahe, Copernicus, and Galileo came to the attention of the British philosopher Francis Bacon (1561-1626) he realized that it involved the use of a logic unfamiliar to Aristotle and his followers, even though it was the method by which they arrived at the universal premisses, like 'all humans are mortal'; in their syllogisms. Bacon called it the inductive method; it is now commonly called the scientific method. Inquiry begins with a careful collection of facts about a given puzzling phenomenon and arrives at a generalization based upon a study of those facts. The truth of the general statement is further explored by deducing its experimental consequences and putting them to the test. Brahe's catalogue of the planets' positions allowed Kepler to plot the orbits of some of them and, after further observations, to conclude that they did indeed circle the sun. Bacon was acutely aware of the tendency of humans to deceive themselves, and he listed four idols that a person had to clear away before making observations. They were the idols of the tribe, which are those false notions common to everyone; the idols of the den, which are the prejudices of the individual; the idols of the marketplace, which result from the misuse of language; and the idols of the theatre, which result from the abuse of authority such as those to which Galileo was subjected by church authorities. Once the observer has cleared away this rubbish, he or she is in a position to record the facts accurately.

The study of inductive logic has come a long way since Bacon introduced it. Probability theory was unknown in his time. Probability is an essential notion in inductive logic because, as everyone knows, some inductive generalizations are better than others. The higher the probability, the more likely that new facts deduced



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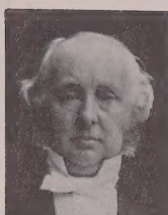
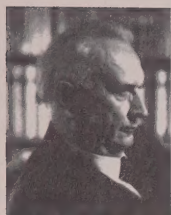
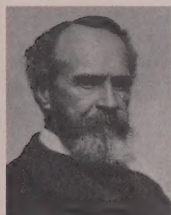
from the generalization will be verified. This is an important step in the scientific method. A preliminary study of the facts collected leads to the formulation of an hypothesis that might be true, but it must be tested. Further facts are deduced from the hypothesis and an experiment is devised and then carried out to determine whether these facts exist. If they do, the probability of the truth of the hypothesis is increased; if they do not, its probability is reduced, and the hypothesis must be modified or, in some cases, even abandoned.

Underlying our reliance on induction is the belief that the past is a reliable guide to the future. Since the sun has come up every morning of our lives we take it for granted that it will come up tomorrow. The belief involved here is called 'the uniformity of nature principle'. David Hume raised an important doubt about the truth of this principle by asking if it can be justified. A deductive proof is ruled out because deduction is an *a priori* process, and the principle is clearly *a posteriori*. That leaves inductive logic as a possible way to justify it, but, as Hume noted, any inductive argument would have to use the principle, and thus would be circular. This is indeed a thorny philosophical problem, still much debated today. A vast literature has been produced without any consensus on a particular solution to the problem. The rising-sun model is only one of three possible models of the way the past relates to the future. A second is the bent-wire model; each time the wire is bent it appears to increase the probability that it can be bent again, but from experience we know that the probability is decreasing with each successive bend. Bertrand Russell cited the chicken that from the day it was hatched was fed by the farmer and happily ran to him every time he appeared, and then one day instead of being fed it gets its neck

wrung instead. How different are we from the chicken? The third model is the fair coin in which past tosses are no guide to the next one, even in cases where there is a long string of either heads or tails. The probability is always one-half. Working scientists are seldom bothered by the philosopher's worries about the reliability of inductive logic. Most of them have a strong conviction that the natural world is governed by laws and that these laws form a stable background for their work. Indeed, they think of their investigations as revealing the laws that give the natural world its structure.

33 Ernst Mach (1838-1916), a physicist who was born in what is now the Czech Republic made a number of important discoveries about light and the propagation of sound waves. Reflecting on his scientific work he became intrigued by the way in which people understood the physical world. In 1886 he published *Beiträge zur Analyse der Empfindungen* (*Analysis of Sensations*) in which he argued that all of our knowledge is based upon sensations. What are called scientific laws are really conveniences of the human mind. In its attempt to understand the world, the human mind, which is also part of what it is attempting to understand, summarizes the data coming to it from sensation by forming general statements. It is really a matter of economic necessity, because the mind finds it impossible to keep the detailed complexity of the data in mind. So what are called scientific laws tell us more about the human mind than they do about natural happenings. What happens in nature happens only once, but we are able through our summaries to hold on to some of its moments. In later writings he continued to defend his radical empiricist and anti-metaphysical views.

Mach's writings on scientific laws inspired the members of the Vienna Circle when they began to meet in the 1920s under the leadership of the physicist/philosopher Moritz Schlick (1882-1936). They were also much influenced by the recent developments in mathematical logic, especially *Principia Mathematica* by Alfred North Whitehead and Bertrand Russell, and by Ludwig Wittgenstein's *Tractatus Logico-Philosophicus*. Philosophy of science was one of the



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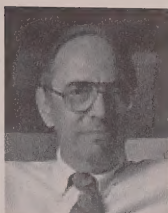
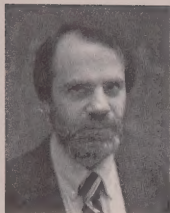
group's central interests. They restricted meaningful statements to two kinds: analytical statements whose truth or falsity is determined by an analysis of the concepts making them up, and empirical statements whose truth or falsity is determined by the existence or non-existence of non-linguistic facts. The latter class constitutes the bulk of scientific statements, although science too makes use of analytic statements when it uses deduction.

In 1921 John Maynard Keynes (1883-1946), later famous as an economist, published *A Treatise on Probability* which he had initially written as a fellowship dissertation at Cambridge in 1909. Important as a contribution to both the philosophical and mathematical foundations of probability theory, it advances the view that probability values were simply truth values located on a continuum between truth and falsity. They can be of two kinds, points and intervals. Intervals are designated by two numbers showing a range of values, whereas points are indicated by a single number. Probabilities of these kinds are possible only in cases where calculation is available as a method. Where calculation is impossible, as it is in many important areas of life, only non-numerical probabilities are possible. These subjective probabilities are arrived at by the knower by weighing the evidence and making a decision as to the likelihood of a certain outcome. One might, to take an example, attempt to estimate the likelihood that the current war in Iraq will end within a year. Keynes, as examples like this one suggest, was very interested in probability as a guide to life.

Rudolf Carnap (1891-1970), a leading member of the Vienna Circle who immigrated to the United States in the 1930s, wrote extensively on the philosophy of science. He advanced his position in 1928 in

35 *Der Logische Aufbau der Welt* (*The Logical Structure of the World*). His approach was a formal one. A scientific theory was in reality an axiomatic system in which the initially undefined terms had been given a meaning. In addition there would have to be certain rules of inference in order to deduce theorems from the axioms. These rules of inference would, of course, be analytic statements. The definitions given the undefined terms had to be stated formally. Once the undefined terms are defined, the axioms become a set of empirical statements. A full account of all the ramifications one encounters in explicating Carnap's position is beyond the scope of these introductory remarks. The model that Carnap is appealing to in his philosophy of science is clearly that embodied in *Principia Mathematica*. His view of scientific theories is applicable only to a fully developed science like physics. In sciences where there is still much very basic work to be done, like biology in the 1920s, it would be of only limited use. Despite which, the biologist J. H. Woodger (1894-1981) did attempt to do so in *The Axiomatic Method in Biology* (1937).

36 Karl Popper (1902-94), an Austrian philosopher who later taught in the London School of Economics, took on the logical positivists and the whole tradition of induction in his *Logik der Forschung* (1934), translated as *The Logic of Scientific Discovery* (1959). The accepted view of what constituted a genuine scientific hypothesis or theory was its verifiability when tested experimentally. Popper rejected that as the definitive test. Falsifiability was a much more important test. A scientific hypothesis or theory can be accepted as genuine if and only if it is falsifiable. Consider the case of universal affirmative propositions, such as 'all swans are white'. This was confirmed by countless observations, because no one had been to Australia. Once there, one negative observation falsified the proposition. Another trivial example of an hypothesis that fails Popper's test is this: 'Zilch hypothesizes that the world came into existence exactly five minutes ago in the state it was five minutes ago'. Everything that can be cited as evidence verifies the truth of the hypothesis, and nothing can be brought forward to show it false. Popper cited much more important instances in his writings. Both



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psychoanalysis and Marxism are theories that fail his test. In both cases, he argued, ad hoc additions to the theories were introduced when falsification threatened. Popper was a vigorous defender of his thesis, and he convinced many of his students to adopt his position. His ideas have also had a wide impact beyond philosophy, for instance, on the noted art historian and theorist Ernst Gombrich.

A. J. Ayer (1910-89), a young British philosopher who had spent a year with members of the Vienna Circle, astonished many in the philosophical world (and infuriated others) with the publication of *Language, Truth and Logic* (1936). In it logical positivism was expounded and defended in all its purity. Central to its argument is the verifiability criterion of meaning. Any non-analytic statement is meaningful if and only if it is verifiable through sense experience. Such statements can never be shown to be necessarily true, because future experience may disprove them. Analytic statements, typically those of logic or mathematics, are shown to be true (or false) solely in virtue of the analysis of their constituent terms. Scientific method is accorded a central role in this philosophy. It is plain that Ayer's exposition owes a good deal to Carnap's work. What he does, that Carnap does not do, is to expound it using language that the educated layman can comprehend. Its great accomplishment was to turn the attention of many young philosophers to the study of the philosophical questions arising out of the language of science. In the heyday of logical positivism and its successor logical empiricism much important work in the philosophy of science was published.

Carl Hempel (1905-97) was born in Germany and educated in Berlin. He emigrated to the United States in the 1930s where, along

with Carnap, Herbert Feigl, Ernest Nagel and Hans Reichenbach, he played an important role in transforming logical positivism into logical empiricism. Throughout his career he held to the view that the empiricist criterion of meaning is a sound principle, although he allowed that some conditions must be placed on its use. In the course of studying the verification of scientific hypotheses, Hempel discovered a remarkable paradox. Its source is simplicity itself. Consider the proposition  $(x)(Rx \supset Bx)$  which states that 'All ravens are black.' Finding a black raven, call it 'a', clearly is a confirming instance of this generalization, because  $Ra$  and  $Ba$  confirm the truth of both the antecedent and the consequent of the conditional statement. But  $(x)(Rx \supset Bx)$  is logically equivalent to  $(x)(\sim Bx \supset \sim Rx)$ , which is confirmed by all non-black non-ravens, then, since whatever confirms a statement also confirms its contra-positive, 'all ravens are black' is also confirmed by every non-black non-raven in the universe, including Carl Hempel himself. To see that a conditional statement and its contra-positive are logically equivalent consider this pair: 'If I live in Toronto, then I live in Ontario' means the same as 'If I don't live in Ontario, then I don't live in Toronto.' In the literature Hempel's discovery is called 'the raven paradox.' He published it first in an article in *MIND* in 1945 entitled 'Studies in the Logic of Confirmation' which was reprinted as the lead essay (with a postscript) in his *Aspects of Scientific Explanation* (1965).

Ernest Nagel (1901-85) was born in Prague and brought at the age of ten to the United States where he received most of his education, earning a doctorate in 1930 at Columbia University where he taught for the rest of his life. His most important book is *The Structure of Science* (1961) often credited with founding the analytic philosophy of science. In it he examined and evaluated the knowledge claims in the various sciences, and reached the conclusion that the same logic was being used in all of them. He proposed that bridge laws, essentially analytic equivalences, between the key terms of different sciences would reduce what appeared to be different ontological commitments in these sciences to those of the most basic science, a very neat



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use of Ockham's Razor that entities are not to be multiplied unnecessarily. Nagel espoused 'naturalism', which had already been given a strong foundation in America by, among others, his older Columbia colleagues, Frederick Woodbridge (1867-1940) and John Herman Randall Jr. (1899-1980). Naturalism's central doctrine is that matter is the primal cause of all natural phenomena, including the 'mental'. Matter is also the basis of the enormous variety of things and of their interactions.

The American Thomas Kuhn (1922-96) taught at a number of leading American universities during the course of his life. In 1962 he published *The Structure of Scientific Revolutions* which advanced a very bold theory about the way in which science progresses. Kuhn rejected the conventional wisdom that this progress is linear and evidences a gradual accumulation of new knowledge. Instead he claimed to be able to distinguish three stages traversed by a given science. The first or pre-scientific stage of inquiry lacks what he called a central paradigm. During this stage the investigators gradually accumulate certain bits of knowledge about a class of phenomena. As these bits grow in number a central paradigm emerges, and, what he calls 'normal science' is developed as puzzles are identified and solved in an attempt to enlarge the paradigm. The failed attempts do not, as Popper claimed, serve to refute the paradigm, but are instead put down as mistakes made by the investigators. When enough of these mistakes accumulate a revolution occurs and a new paradigm is produced which finds a place for the (formerly) mistaken results. An example of these three stages can be seen in the history of chemistry beginning in the work of the alchemists, then making rapid advances after the adop-

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tion of the theory that matter is composed of indivisible atoms, to its contemporary state after the paradigm shift to modern atomic theory as a replacement for the older atomic model. Kuhn's theory has had a profound impact on both the philosophy of science and the history of science.

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## PHILOSOPHY OF MIND

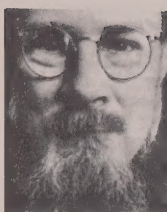
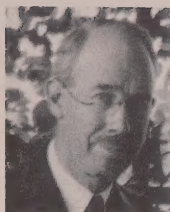
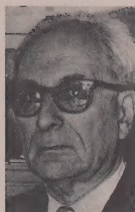
The philosophy of mind studies the nature of mind and mental functions, including consciousness. Among the classic problems are the relationship between our minds and our bodies, i.e. the mind-body problem, aspects of the problem of free will, the nature of personal identity, and the problem of how we know that there are other minds. Two broad metaphysical positions have dominated the area. *Dualists* believe that mind and body are two distinct types of reality. *Monists* either believe that everything is mind, or that everything is body. In the first case, idealists argue that the apparent 'physical' world is in some way itself mental. In the second, materialists hold that mentality is in principle explicable in terms of bodily processes.

The problems have a long history in philosophy. For instance, Aristotle (384-322 BCE) in his *De Anima* or *On the Soul* spoke of the soul as the 'form' of a body and the primary principle of life, in particular pointing out that we are rational animals. Descartes (1596-1650) is often credited with originating the mind-body problem. A dualist, he argued that mind and body are two fundamentally distinct substances: the first is something that thinks but has no extension; the second is spatially extended but cannot think. However, our mental states, such as desiring or thinking, do have an impact on our body—we push the TV controller to change the channel. But how is it that an immaterial thinking substance can interact with a material body? Descartes offered the pineal gland as an explanation, but really he left it to posterity to answer the question. The answers have been many.

Interest in problems of the mind increased in the latter part of the nineteenth century. Until the twentieth century psychology was still generally considered a branch of philosophy, although growing inter-

est in brain injuries and mental disease on the part of medical doctors was leading to the development of scientific psychology. Evidence of that link can be seen in the original subtitle of what is still a leading journal of philosophy, *MIND: A Quarterly Review of Psychology and Philosophy*, which was founded in 1876 by Alexander Bain, a keen student of philosophical psychology. But change was in the wind and the tools of scientific medicine were reducing the confidence of philosophers that they could speak with real authority about the mind, let alone about the brain. Today, some of the questions earlier posed by philosophers would not be asked, let alone answered by them. Speculation has been replaced by dissection. However, a wide-range of classic questions remain amenable to philosophical analysis.

Born into a family of substantial means, William James (1842-1910) traveled widely as a youth, which led to a somewhat unconventional education. His father Henry wrote several books, primarily on theological/religious themes, while his younger brother, also Henry, was the famous novelist. William studied at Harvard, earning a medical degree, and then in Europe. In 1873, he began teaching at Harvard, where he remained until 1907 teaching primarily philosophical courses. However, he did set up the first psychological laboratory in America in 1875 and he was at the forefront of making psychology a subject of scientific study. The objects of that study, for James, are our thoughts and feelings, and the physical world with which we interact, and which we, most importantly, know. He accepted the dualism of mind and body, but rejected the idea that they could not interact. In the 41 *Principles of Psychology* (1890) he introduces the idea of a 'stream of thought', later known as the 'stream of consciousness'. Consciousness belongs to a self and changes in a continuous manner, even when interrupted, such as by sleep—when we awake we are aware that we are the same person. There are, as well, several senses of self: one's material self, including one's body; one's social self, which dictates our behaviour; one's spiritual self, where the stream of consciousness truly resides. Having completed the *Principles*, James's interests moved to other philosophical topics and in 1892 he recruited Hugo Münsterberg (1863-



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1916) from Germany to come to Harvard as the director of its psychological laboratory. However, even then the psychology program at Harvard remained part of its philosophy department.

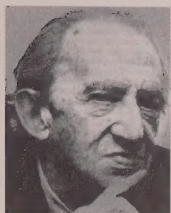
C. D. Broad (1887-1971) began as an outstanding science student at Cambridge before switching to philosophy, then called moral sciences. He was taught by, among others, J. M. E. McTaggart whose *The Nature of Existence* he later posthumously edited and on whom he wrote a massive critical study. Broad completed his degree with special distinction and won a prize fellowship with a dissertation in philosophy of physics. From 1911 to 1923 he taught away from Cambridge, before returning and ultimately holding the Knightbridge Professorship of Moral Philosophy from 1933 to 1953. *The Mind and its Place in Nature* (1925) is his third book and in it Broad seeks to accommodate a scientifically-oriented materialist view of the world with his belief that mind could not be captured by any description of physical properties alone. Although Broad recognizes that mental events are dependent on physiological processes he insists that they themselves are non-spatial. As well, there do *seem* to be some mind-dependent or non-physical aspects to reality—which, incidentally, contributed to Broad's life-long serious, though perhaps overly credulous, research interest in parapsychology—and which led to his belief that the mind could survive bodily death. In reaching these conclusions he carefully canvasses a wide variety of theories that attempt to explain the relationship of mind to body: 'It appears to me that *seventeen* different types of metaphysical theory are possible theoretically on the relation between Mind and Matter.' In the end, Broad opts for Emergent Materialism, which sees mentality as an 'emergent characteristic' that cannot,

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however, be reduced to the material complexes from which it arises.

43 C. I. Lewis (1883-1964) is today the least read of the major pragmatists, perhaps regrettably, for he is a very capable and distinctive advocate of this philosophy. Lewis entered Harvard in 1902 and was forced due to his family's poverty to complete his degree in three years while also holding down a variety of part-time jobs. After several years of high school teaching he returned to Harvard in 1908, receiving his Ph.D. in 1910. He taught at Berkeley from 1911 to 1920, and then at Harvard from 1920 to 1953, latterly as Edgar Pierce Professor of Philosophy. After his retirement, Lewis returned to California where he taught at Stanford until 1957. *Mind and the World-Order* (1929), his second book, is a work in epistemology, but one that is attentive to considerations regarding the mind, as his title would suggest: 'The history of philosophy since Descartes has been largely shaped by acceptance of the alternatives; either (1) knowledge is not relative to the mind, or (2) the content of knowledge is not the real, or (3) the real is dependent on the mind.' However, Lewis argues, these are false alternatives. Knowledge can be relative to mind while having an independent object. Knowledge is not simply given to us by sensation, for mind must make its contribution. However, while the 'given' requires ordering by the mind to produce knowledge, the categories by which we order it are not *a priori*, as in Kant, but emerge in a social context as we respond to our practical needs as knowers and doers. Experience is ordered in the light of ends that we wish to achieve, and we choose our conceptual systems on instrumental or pragmatic grounds. What is *a priori* to any particular experience is something that I and others have developed over time in answer to our epistemological needs, a 'pragmatic *a priori*', and thus it is not immutable but always open to modification as these needs change.

Gilbert Ryle (1900-76) was arguably the leader of Oxford philosophy for a generation. He had himself studied at Queens College, obtaining a first in *literae humaniores* in 1923 and then again in PPE in 1924. Shortly thereafter he became a lecturer at Christ Church and in 1947 was named Waynflete Professor of Metaphysical Philosophy. In the



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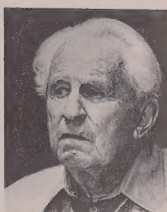
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same year he became editor of *MIND*, arguably the most influential journal in the field. He continued as its editor until 1971, and from this position and his post at Oxford he played a unique role in assisting many young philosophers in their careers. *The Concept of Mind* (1949) is a masterpiece of what became known as linguistic analysis or ordinary-language philosophy. With exceptional clarity and directness Ryle argued against Cartesian dualism, in particular the understanding of the mind as a 'Ghost in the Machine' of the body. The Cartesian's mistake lies in concluding from his recognition that talk about the mind is not talk about a physical entity that it must therefore be talk about a mental entity. Rather, it is not an entity at all. Such talk is really about how we behave. We do not have the introspective knowledge of our mental states that we think we have, but depend upon understanding of our behaviour to acquire such knowledge. To say that someone is 'painting thoughtfully' is not to pick out a hidden process that accompanies his/her painting, but to say something about how he/she is painting. It is people, not minds, whom we call 'thoughtful', 'stupid', 'witty', 'dull', and so forth. For Ryle, 'mind' is not the name of a place or thing where mental processes occur. It is true that our actions are more than bodily movements, but that 'more' is not an occult process but the expression of our being persons who have dispositions, purposes and so forth, and we achieve insight into these by attention to reason-giving explanations of our actions.

Herbert Feigl (1902-88) was born in Reichenberg, Austria, which after the First World War became part of Czechoslovakia. He studied physics and philosophy first in Munich and then, following Moritz Schlick, in Vienna, where he received his Ph.D. in 1927. He was one of

the initiators with Schlick and Friedrich Waismann (1896-1959) of the Vienna Circle, whose regular Thursday evening meetings he attended from 1924 to 1930. From 1927 to 1930 he taught at an adult education institute in Vienna, before immigrating to the United States where he first held a research fellowship at Harvard and then, in 1931, took up a position at the University of Iowa. He moved to the University of Minnesota in 1940, where he founded the journal *Philosophical Studies* in 1950 and established the Minnesota Center for the Philosophy of Science in 1953. While most of his distinguished work is in the philosophy of science, perhaps the most memorable of his pieces is the book-length essay 'The "Mental" and the "Physical"' which, so to speak, nailed his materialist principles to the mast. Feigl, an anti-dualist, maintains that only physical substances exist. The mental states or 'raw feels' that we know by introspection are *identical* with states of the brain or central nervous system. The fact that the ordinary person has no knowledge of neurobiology does not change the fact that when he/she speaks of an 'ache' what is being talked about is a brain process. The 'Morning Star' and the 'Evening Star' may be stimulated by quite different perceptual experiences, but they refer to the same planet. Because mental states are describable in the language of neurophysiology, such language, at least theoretically, could replace mentalistic language in scientific explanations of behaviour. Only 'theoretically', however, because talk of 'sensations', 'thoughts', and 'feelings' is not fully eliminable from the language of everyday life.

Somewhat similar views had been earlier advanced by U. T. Place (1924-2000) in his 1956 article in *The British Journal of Psychology*, 'Is Consciousness a Brain Process?' Which answered, indeed, that it was. Then, in 1959, J. J. C. "Jack" Smart (1920- ) published 'Sensations and Brain Processes' in the *Philosophical Review*, which again advocated an identity theory of mind: 'A man is a vast arrangement of physical particles, but there are not, over and above this, sensations or states of consciousness. There are just behavioural facts about this vast mechanism.' At the time Smart's definitive statement of the theory was labeled by its detractors as 'Australian materialism', this despite the fact



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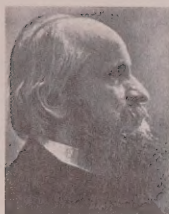
that Smart was a Scot, educated at Oxford, who had only moved to Australia in 1950. The point of doing so perhaps was that Australians, being unsophisticated frontier types, would be exactly the sort of people you would expect to come up with such an unsubtle, materialist theory. However, events proved that Australians are sometimes emboldened rather than deterred by such criticism.

David Armstrong (1926- ) was born in Melbourne and educated in Sydney, Oxford, and Melbourne, receiving his doctorate from the last in 1959. He taught at Melbourne and then Sydney where he was Challis Professor of Philosophy (1964-91). In *A Materialist Theory of the Mind* (1968) he did not set out to defend again the identity theory of mind, for he felt that Smart and others had ably done so, concluding that the theory was on 'the right track [for] the contingent identification of mental with the physical seems neither particularly paradoxical nor particularly bold.' Rather, Armstrong sought to give a detailed account of mental concepts within a materialist context such that a central-state theory would be seen to have 'no logical or philosophical obstacles.' First, he reviews the major alternatives, pointing out the problems which each gives rise to. Then he demonstrates how 'our theory' overcomes those objections and the advantages that it has over alternatives. Thirdly, and most importantly, he explains how mental concepts, such as 'willing', 'believing', 'knowing', 'perceiving', and 'thinking', and the having of 'mental images' and 'bodily sensations' can be fully, and consistently, explicated within the framework of a physicalist theory of mind. Key in his version of the theory is the analysis of a mental state as being intermediate, or central, between stimuli and the behavior that results from mental activity. What plays this causally central or inter-

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mediate role? It is most likely, he says, some state or process of the brain. However, while it is the task of science, not philosophy, to *prove* the physicalist thesis, Armstrong thinks he has shown that 'there are no good philosophical reasons for denying that mental processes are purely physical processes in the central nervous system and so, by implication, that there are no good philosophical reasons for denying that man is nothing but a material object.'

47 Not all philosophers, of course, were attracted to such a characterization of mental activity. Several years earlier Stuart Hampshire (1914-2004) had published *Thought and Action* (1959), which took a very different approach to analyzing mental concepts. An exceptionally urbane man, Hampshire obtained a brilliant first in 'Greats' at Oxford in 1936 and was immediately elected to a prestigious fellowship at All Souls College. Such success marked the balance of his career, which included teaching and administrative positions at Oxford, London, Princeton and Stanford. Despite his several years of wartime service he was already a Fellow of the British Academy by 1960, and in 1979 he was knighted. In *Thought and Action* he criticizes the emphasis that the Cartesian tradition places on sensation and perception. In doing so, he argues that its explanations had lost sight of the fact that we are first and foremost actors, 'self-willed agents', not 'passive observers' or spectators. There is a difference between doing something 'from habit' and 'out of duty'. What is that difference? It is that intentional action plays a leading role in our conceptual scheme, which involves our being physical agents in a social environment. 'We are in the world, as bodies among bodies, not only as observers but as active experimenters.' Self-knowledge of the agent arises from reflection upon his/her desires and influences intentions, choices, and actions. Hampshire's views in philosophy of mind also impact his distinguished work in moral philosophy, e.g. *Freedom of the Individual* (1965), with its emphasis on self-conscious intentional action as a central fact of human nature. There he also drew upon his widely praised introduction to *Spinoza* (1951) and the emphasis therein on the link between knowledge and freedom. In addition to philosophical writing, Hampshire was a highly



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insightful literary critic with dozens of essays and reviews in *The New York Review of Books* and other periodicals.

Perhaps the greatest impact on philosophy of mind in recent decades has been made by Daniel Dennett (1942- ), whose approach is highly informed by scientific research, particularly work in cognitive psychology, neuroscience, and evolutionary biology. Dennett writes that the 'two main topics in the philosophy of mind are content and consciousness', the title of his first book, *Content and Consciousness* (1969), which developed from the D.Phil. thesis that Dennett, a Harvard undergraduate, completed at Oxford with Ryle as his supervisor. After receiving his doctorate Dennett taught briefly at Irvine before moving to Tufts in 1971, where he is currently Austin B. Fletcher Professor of Philosophy and Director of the Center for Cognitive Studies, which center was established at Tufts in 1985 to keep Dennett from moving to Pittsburgh to assume a chair vacated by Wilfrid Sellars. Dennett's early views on 'content' are based upon his substantial reformulation of Brentano's notion of 'intentionality' in the direction of a theory which more adequately addresses what we know not only about behaviour but also about the physical operation of the brain: 'we can neither do without the Intentional, nor cleave to it alone... the alternative of an entirely Intentional psychology would entail a catastrophic rearrangement of science in general.' Dennett much later wrote: 'from the outset I worked from the "third person point of view" of science, and took my task to be building—or rather sketching the outlines of—a physical structure that could be seen to accomplish the puzzling legerdemain of the mind.' Brains being designed by evolution to do the 'the right thing (from the point of view

of meaning) with high reliability? Dennett has continued to develop these ideas in a number of influential essays and books including, most notably, *The Intentional Stance* (1987) and *Consciousness Explained* (1991). More recently he staked out a position in the evolution debates with *Darwin's Dangerous Idea* (1995) and made a passionate anti-religion plea in *Breaking the Spell: Religion as a Natural Phenomenon* (2006).

FMW

## PHILOSOPHY OF LANGUAGE

Language is the medium in which the philosopher works. Whatever thought itself may consist of its expression must be in language. So if there are problems of understanding in the language a philosopher uses, then difficulties will arise in communicating his thoughts to others. Some of these problems are readily solved, for example, misunderstanding due to ambiguity. Once such a problem is identified, it can be eliminated by elucidating the competing senses of the word or words in doubt and specifying the sense intended in the given context. Problems of vagueness are not so easily dealt with. A term is vague when the range of its intended reference is unclear. To take a simple example: the word 'bachelor' is vague because there is no universal agreement on the age at which it is applicable. A thirty-year old unmarried male is clearly a bachelor, but what about an unmarried male of eighteen. Some would say the latter fits the word, others that he does not. The nature of the world is such that many of the words we commonly use to denote, or refer to, its contents are vague. Political discourse is fraught with words like 'freedom' and 'democracy' that are vague and lead people to take opposing sides on issues where such words are applicable.

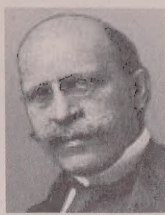
Another area where difficulties arise concerns questions of meaning. When we are children learning the language, we are presented with objects and at the same time hear a word being pronounced. This procedure usually works without a hitch, but it can go wrong. Consider the child handed a yellow circle while the word 'yellow' is said. The teacher expects the child to connect the word with the colour, but the possibility remains that she might connect the word with the shape. That most of us pass these early tests and go on to learn the

language is a remarkable fact about human beings.

49 The example just cited appears to suggest that the meaning of the word 'yellow' is its denotation or reference. In answer to the question, 'What does "yellow" mean?' we point to an instance of the colour. But trouble looms if we extend this theory of meaning widely. Gottlob Frege raised the problem of 'the morning star' and 'the evening star', both of which denote the planet Venus. If meaning were limited to reference, then the two expressions would mean the same, but this seems perverse. Frege, in a journal article 'Über Sinn und Bedeutung' (1892), distinguished two aspects of the meaning of such expressions. The American philosopher Max Black (1909-88) translated it as '**On Sense and Reference**' (1948). According to Frege the references of the two expressions are identical, namely Venus, but their senses differ. People used the two expressions for centuries before their common reference was discovered, so they could not have understood their meaning as their denotations. Indeed, they almost certainly thought they were talking about two different stars. Frege's 'sense' is now more commonly called 'connotative meaning', and his 'reference' is known as 'denotative meaning'.

The argument for two kinds of meaning can be strengthened by considering this sentence: 'The round square does not exist.' There is nothing in the world that answers to the expression 'the round square', therefore the expression can have only connotative meaning, albeit contradictory. An expression's meaning does not have to be contradictory to raise a problem. 'The golden mountain does not exist' is true, but it does not commit us to the existence of a golden mountain. Bertrand Russell solved the puzzle arising from our use of definite descriptions like 'the golden mountain'. Such phrases appear to have a denoting function, but under his analysis, which is widely accepted as definitive, the words have only connotative meaning.

Frege argued that proper names like 'George Eliot' also had both a sense and a reference. John Stuart Mill held that proper names had only referential meaning: that 'George Eliot' served only to pick out a certain person who flourished in the nineteenth century. Frege



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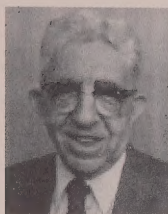
thought Mill mistaken because the first time we hear the sentence 'George Eliot is Mary Ann Evans' we are surprised and believe we have learned something new. Our reaction is not the same upon hearing 'George Eliot is George Eliot'. What explains the difference? Frege was convinced his distinction between sense and reference was the key. Proper names have both kinds of meaning. Russell disagreed. He contended that proper names like 'Socrates' were disguised descriptions. When we learn about Socrates we think of him as 'the philosopher who drank the hemlock' or under some other description. For Russell the only logically proper names are indexicals like 'this' and 'that' which have referential meaning only. The positions taken by Frege and Russell continue to be discussed by philosophers.

The problem of reference is intimately connected to the ontological problem of universals. What are universals? For Plato they were the Forms, transcendent exemplars of the forms of particular things. Russell in 'On the Relations of Universals and Particulars' (1911) and in his elegant little book *The Problems of Philosophy* (1912)—'my Shilling Shocker' as he referred to it in private correspondence—argued for a realistic position. Our everyday language allows us to attribute the same predicate to different subjects. Thus we can say that 'Russell is a philosopher' and 'Frege is a philosopher'. Both statements are true. Particulars like 'Russell' and 'Frege' exist at a certain place at a certain time, whereas universals like 'philosopher' and 'logician' do not. There are many more particulars of which it is true to say they are philosophers or that they are logicians. In order to make sense of our language we must admit both particulars and universals. Russell thought that universals subsisted, that is to say they had 'being' but did

not exist, because existence presupposes a time and place which only particulars enjoy. Against nominalists who are squeamish about admitting universals, even subsistent ones, Russell argued that they had to admit one, namely, similarity, in order to say that two instances of a word were the same name. Otherwise they had no theory. The problem of universals is still widely discussed today.

51 Linguistic problems were of central concern to the logical positivists and their successors the logical empiricists. For these schools there are only two classes of statements, those that are analytic and *a priori* and those that are synthetic and *a posteriori*. They reject Kant's claim that there are synthetic *a priori* statements. Rudolf Carnap was a leading member of both of these movements. In 1934 he published *Logische Syntax der Sprache*, translated as *The Logical Syntax of Language* (1937), in which he invented and studied a formal language capable of expressing classical mathematics and physics. By its terms he defines the two classes of statements. A statement is logically true if and only if it is a consequence of the empty set of statements, that is to say that it requires no premisses. A statement is logically false if and only if all statements follow logically from it, in other words a self-contradictory statement implies all statements. Logically true and logically false statements comprise the class of analytic statements. All the other statements admissible in the formal language under study are synthetic. Since analytic statements depend for their generation only on logical rules, they are *a priori*. All synthetic statements are *a posteriori*. These syntactical definitions were restated using semantic terminology in his *Meaning and Necessity* (1947)

The formalism of the logical empiricists was countered in England by a group who came to be known as 'the ordinary language philosophers'. Their leader was J. L. Austin (1911-60) who was educated at Balliol College, Oxford, and who, after working in intelligence during the Second World War, returned to Oxford where he was later appointed White's Professor of Moral Philosophy. G. E. Moore was, he claimed, his main influence. He advanced his views in a number of papers and in the William James Lectures delivered in Harvard



MURDOCH  
NAGEL  
NIETZSCHE

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University in 1955; they were published posthumously as *How to do Things with Words* (1962), edited by J. O. Urmson. He thought that previous philosophers were mistaken in thinking that the principal use of sentences was to state facts and thus to be either true or false. Such sentences form a small part of all possible utterances. One sort of overlooked sentence was of particular interest to him. These sentences, which he named 'performative utterances', not only convey information, they also perform a certain kind of action. What is more they are neither true nor false, but they can go wrong. In such a circumstance they are said to be 'infelicitous' or 'unhappy'. Examples are easily come by: 'I christen thee Isophenia Slater' revealed information to all those present and also performed the action of bestowing on my great aunt her odd name. Austin was later to call such utterances 'speech acts', a topic taken up by John Searle in his book *Speech Acts: an Essay in the Philosophy of Language* (1969). It is, I think, safe to say that Austin's work on the logic of ordinary speech generated a virtual cottage industry. When I was a graduate student at the University of Michigan in the late 1950s, ordinary language philosophy was taken up by many of my contemporaries. The common room echoed with assertions by students claiming to be 'worried' (a word nearly worried to death by devotees of the school) about the 'logic' of some perfectly ordinary verb like 'to carry'. Such activities were said to have a therapeutic function, because they freed the thinker from philosophical hangups associated with such words as 'free'. As a movement ordinary language philosophy did not long survive the early death of Austin in 1960.

G. E. M. Anscombe (1919-2001) was born in Ireland to English parents. She read *literae humaniores* at St Hugh's College, Oxford, grad-

uating with a first in 1941. During her first year she converted to Roman Catholicism and remained a very devoted member of that church for the rest of her life. From 1942 to 1945 she was a research student at Newnham College, Cambridge, where she attended Wittgenstein's lectures. While at Oxford she met and married Peter Geach, also a convert to Catholicism, and they became the parents of seven children. Geach was also a member of Wittgenstein's circle and together they carried on an abiding interest in his philosophy. Wittgenstein named Anscombe one of his literary executors, and she helped edit his manuscripts and translated several of the resultant works. From 1946 to 1970 she was a don at Somerville College, Oxford. In 1970 she returned to Cambridge as Professor of Philosophy, a post she held until her retirement in 1986. Her second book was *An Introduction to Wittgenstein's Tractatus* (1959) in which she drew attention to the importance of Frege's influence on Wittgenstein's early philosophy.

- 53      Anscombe's first book *Intention* (1957) is an examination of human action and willing, by means of a study of the concept of 'intention'. She distinguishes three ways in which this concept is used in common language. We might say of someone who is breaking the law that 'she is doing it intentionally'. Anscombe called examples of this sort 'intentional action'. In other circumstances we might say of someone that 'he is scouring the internet with the intention of footnoting his essay' or 'he is opening the dictionary in order to check the spelling of "asafetida"'. She described such cases as indicating a further intention in acting. Finally, we might say of someone that 'she intends to go to graduate school and study philosophy'. This, according to Anscombe, is an expression of intention for the future. A true analysis of 'intention' must connect these uses. In cases of intentional action it makes sense to ask the person performing the action why she is doing it. Only some answers to the question 'why?' support the conclusion that the action is intentional. An example she provides to show that under some descriptions an action is intentional and under others it is not asks us to picture a man moving his arm up and down. If we think he is operating a pump, then his action is intentional; but if we think he is



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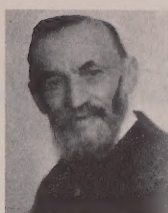
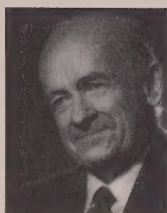
merely contracting his muscles, then it is not. This analysis of intentional action clearly connects with the second way the concept is used, because in those cases the reason for the action is contained in the expression itself. Since the third way involves future action, the reason given can be assessed in the same way. It may, of course, never come to pass. The American philosopher Donald Davidson (1917-2003) was one of many who were influenced by Anscombe's work on intention.

W. V. O. Quine was one of the most important philosophers and logicians of the twentieth century. His famous paper 'Two Dogmas of Empiricism' was read at a meeting of the American Philosophical Association at Hart House in the University of Toronto in December 1950. The two dogmas are: (1) 'a belief in some fundamental cleavage between truths which are *analytic*, or grounded in meanings independently of matters of fact and truths which are *synthetic*, or grounded in fact'; (2) 'The other dogma is *reductionism*, the belief that each meaningful statement is equivalent to some logical construct upon terms which refer to immediate experience.' He goes on to argue that neither dogma is tenable. This is clearly an attack on the philosophy that began with Russell and continued with the logical positivists and logical empiricists. Tossing these dogmas aside, he went on to say, will lead to 'a blurring of the supposed boundary between speculative metaphysics and natural science' and to 'a shift toward pragmatism.' A gauntlet had been thrown down by one of the most promising young philosophers trained in the analytic tradition. The position he staked out in this article was to remain central to all his future work.

In 1960 Quine published *Word and Object*, an extensive study of the way in which linguistic analysis can be used to resolve some philo-

sophical problems. The uncertainty that many have felt with regard to the reality of objects, both concrete and abstract, can be removed, he argued, by defining the relationship between words and objects. Using a behaviouristic theory of language he tackles such problems as the nature of truth, the difficulties associated with translation, the various problems that arise with regard to reference, the distinction between singular and general terms, the nature of vagueness, and the relation between propositions and meanings. He also questions the distinction between nominalism, the theory that there are no universal objects, and realism, that there are such objects and that they exist independently of our perceptions of them. As might be expected, he also restates his reasons for abandoning the two dogmas of empiricism.

55 Saul Kripke (1940- ) was born into a conservative Jewish family in New York. His father is a rabbi and his mother writes Jewish educational books. He grew up in Omaha, Nebraska, and at the age of sixteen he wrote an essay on the semantics of modal logic that was read by someone in the Philosophy Department at Princeton. This resulted in a letter of invitation to join the department as a student to which he replied: 'I am honored by your proposal, but my mom says I have to finish high school first.' He earned a bachelor's degree in mathematics from Harvard. During his second year there, he taught a graduate course in logic at MIT. This young prodigy was appointed to the faculty at Harvard, and later taught at Rockefeller University, Cornell, Princeton, and CUNY Graduate Center in Manhattan where he is currently a distinguished professor of philosophy. Most of his publications have been articles in journals. His first book *Naming and Necessity* (1972) is an attack on the theory of reference advanced by Frege and Russell. In this theory a name refers to an object by virtue of the name's linkage to a description that the object satisfies. Thus, since Socrates is the philosopher who drank the hemlock, the name 'Socrates' is used to refer to the man who satisfies that description. Kripke thinks this is an implausible theory, because we can imagine Socrates being born and dying as a child. Would it be wrong to deny that he was Socrates because he failed to satisfy the description? Kripke



OWENS  
PASSMORE  
PEANO

thinks it would be. In place of this theory he proposes a causal theory of reference. To refer to an object a name must have a causal connection to the object by virtue of the fact that it is treated that way within communities of speakers. A name, he contended is a 'rigid designator'; it refers to its object in every possible world in which the object has a place. His theory has been widely influential among philosophers, although there are still many who prefer the Frege-Russell theory.

David Lewis (1941-2001) was born in Oberlin, Ohio, the son of two college professors. He was educated at Swarthmore College and Harvard University where he was a student of Quine. In between he spent a year at Oxford where his teachers were Iris Murdoch, Gilbert Ryle, H. P. Grice, Peter Strawson, and J. L. Austin. After three years at the University of California at Los Angeles, he moved to Princeton in 1970 and taught there until his death. His interests were wide ranging, and he made important contributions to several areas of philosophy. *Counterfactuals* (1973) offers an account of counterfactual conditional statements in terms of a theory of possible worlds. Such statements are commonly used when a person regrets a certain happening. Thus, the student who gets a poor grade on a test laments to herself: 'If I had read more of the textbook, I would have got a better grade'. We all use such statements even though we know they cannot change what is past. Lewis contends that it does make sense to talk of the truth of such statements. There is, he thinks, a possible world just as concrete as our own and significantly similar to it in which the student did manage to read more of the book and did get a better grade. In this case the counterfactual is true. But if there was another possible world even more similar to ours in which the student read more but did not get a better

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mark, the conditional would be false. Of all possible worlds we just happen to label the one in which we find ourselves as 'actual'. Statements that are true in all possible worlds are necessarily true. Lewis admits that his theory flies in the face of common sense, but he argues that it has certain philosophical advantages that make it worthwhile. Other philosophers have objected that we can never know what goes on in other possible worlds, and others that his theory violates Ockham's Razor that entities are not to be multiplied unnecessarily. Not surprisingly, his theory remains contentious.

JGS

## CONTINENTAL PHILOSOPHY

In recent decades much has been made of the divorce between the philosophical approach of most Anglo-American philosophers, or as they are often labeled 'analytic' philosophers, and that dominant among European philosophers who are often seen as unsympathetic to analytic philosophy and who have attracted the label 'Continental'. Perhaps too much has been made of these labels. After all, the man who is seen by many as the father of analytic philosophy, Gottlob Frege, was a German, and a good number of the key figures in its development have been German or Scandinavian. As well, in both England and America there have been prominent non-analytical schools that have been inspired by European thinkers, for instance, idealists who built upon the work of Hegel. Finally, particularly because of the intellectual migration that resulted from the rise of Nazism, philosophers of varying schools of thought resettled in Britain and the United States where they had a deep influence on the development of the subject in a variety of directions and using a wide range of methods.

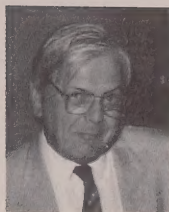
Nor has the divorce been as complete as we might imagine it. The first major philosophical work of Bertrand Russell, the other 'father' of analytic philosophy, was a study of Leibniz. Edmund Husserl, the 'father' of much Continental thought, gave a course of lectures on Phenomenology at University College, London in 1922, right at the peak of the blossoming of analytic philosophy in Britain. Gilbert Ryle, later the editor of *MIND* and a leader in the analytic school, early in his career gave a course of lectures at Oxford: 'Logical Objectivism: Bolzano, Brentano, Husserl and Meinong', which local wits are said to have referred to at the time as 'Ryle's three Austrian railway stations and one Chinese game of chance.' Clearly, there has always been interest

and some cross-fertilization. Be that as it may, there has been enough of a difference in tone and technique that the distinction is intelligible to most professional philosophers, who have little difficulty understanding what is intended when someone else, say a job candidate, is described as fitting into one or the other 'camp', although they might resist such a flip categorization if it were to apply to themselves.

One aspect of philosophy that has resisted this separation is its strong intrinsic interest in studying and learning from its own past. Philosophers on both sides of the English Channel have drawn from the same historical well—a tradition that ranges from the Greeks to Kant and beyond. Learning from and building upon the same texts has helped to keep the divorce from being final. Indeed, there are many recent signs of a rapprochement. Nevertheless, while there is substantial agreement among Western philosophers on what is noteworthy and of timeless value in pre-1870 philosophy, there is substantially less as to what is valuable in the post-1870 period.

In many ways this exhibition reflects the reality of the divorce or separation that has been a fact of twentieth century academic life. As a result, work by Continental philosophers of the non-analytic schools is comparatively underrepresented. In order to offset this somewhat, we decided to devote a cabinet to Continental thought, although as one can quickly see many European philosophers have been included in other cabinets.

A wonderful example of a thinker whose influence has transcended geographical barriers is Franz Brentano (1838-1917). He was born into a family of scholars and attended university at Munich, Würzburg, Berlin, and Münster, making a special study of Aristotle, who remained his favourite philosopher. In 1864, he was ordained as a Catholic priest and two years later began teaching philosophy at Würzburg. In 1873, following the declaration of papal infallibility (1871), he resigned his position and left the priesthood. The next year he moved to Vienna and in 1895 to Italy. He was a popular lecturer and academic advisor, and a multi-faceted personality: writing poetry and composing riddles, inventing a new defence of the Spanish Game in



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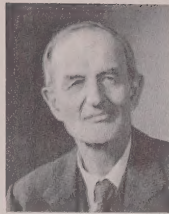
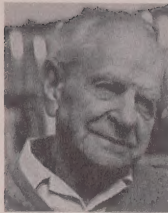
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chess, and enjoying marriage, children, and a full family life. Brentano believed that philosophy ought to be an exact discipline that embraces scientific method. His *Psychologie vom empirischen standpunkte* (1874) is his most famous and influential work. In it, he undertakes what he calls 'descriptive psychology', providing an account of the structure of mental activity. Although he considered himself an empiricist, his method was not the experimental psychology of Wilhelm Wundt (1832-1920), but the careful observation of the very act of experience itself—a phenomenology of mind. He asked: What are the essential characteristics of the mental? And, into what categories can such phenomena be divided? Importantly, he argued that mental phenomena are distinguished from physical by their 'intentionality', they are directed to an object or refer to a content. We think *about* something, have a desire *for* something, and perceptions *of* something. That 'something' may be a mental content, or an imagined object, i.e. the object may not actually exist, but there must always be a something to which the mental act is directed. As to the categories of the mental, Brentano said these were exhausted by representations, judgments, and feelings. His ideas have had a wide-ranging influence upon philosophers of all stripes.

Perhaps no European thinker of our period has attracted greater interest and controversy than Friedrich Nietzsche (1844-1900). Indeed, a glance at any Canadian bookstore's shelves would seemingly demonstrate that interest in his work has never been greater. Nietzsche was educated as a classicist at Leipzig and became a professor of classical philology at Basel when he was just twenty-four. From 1872 to 1889 he produced a stunning series of works, before succumbing to insanity

(likely tertiary syphilis). His writing is idiosyncratic, if not exotic, setting aside many philosophical conventions regarding argumentative style. However, it rarely fails to powerfully move his readers, either positively or negatively. We have chosen *Zur Genealogie der Moral* (1887) to represent his thought. Like most of his works, it appeared in a small edition of just six hundred copies, the printing of which had to be paid for by Nietzsche. While *On the Genealogy of Morality* is one of Nietzsche's shorter works, it is also one of his masterpieces. In it he seeks to overthrow the claims of Christian morality by showing its genealogy or pedigree. In earliest times, morality arose at the instance of the strong and privileged who posited their qualities—nobility, strength, courage, etc.—as definitive of the 'good'. The qualities of the weak defined the 'bad'. With the rise of Christianity there was a 'transvaluation of values' and the morality of the weak gained ascendancy—a morality based on the resentment of the slaves against their masters. This has led to the degeneration of the human race, which to be saved must undergo another transvaluation of values which rather than being an ethic based on 'blame' must again be the affirmative ethic of the strong, an ethic of 'responsibility'. Thus rejecting the ascetic ideals of Christianity in favour of a full acceptance of life where man creates his own values.

Henri Bergson (1859-1941) was a philosopher of a very different character than Nietzsche and one who had a much greater influence in the early decades of the twentieth-century. Bergson was elected to the Académie Française in 1914 and was awarded the Nobel Prize for literature in 1927. Indeed, he is the first of only three philosophers who thus far have been awarded that Prize, the others being Russell in 1950 and Sartre in 1964. Notwithstanding such acclaim Bergson is little read today, whereas Nietzsche is widely read and influential. Bergson was born in Paris, but spent several years of his childhood in London. In 1881, he graduated from the École Normale Supérieure, after which he taught in the provinces until 1888 when he returned to Paris, where he eventually held a chair at the Collège de France from 1900 to 1921. His lectures were said to be so popular with both students and the general



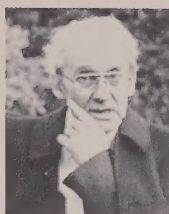
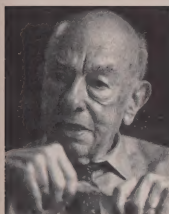
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public that it was sometimes necessary to sit through the preceding lecture to be sure of obtaining a seat. Of Jewish extraction, Bergson indicated in his 1937 will that he would have been baptised into the Catholic Church had it not been for the growth of anti-Semitism and his wish to identify with the persecuted. Indeed, he died in 1941 from pneumonia that he seems to have contracted after standing for many hours in a queue while waiting to be registered by his choice as a Jew. Bergson's general position was one of opposition to materialism and mechanistic philosophies. His first major philosophical work *Essai sur les données immédiates de la conscience* (1889), translated as *Time and Free Will*, argues, among other things, that duration, that is, experienced time, exists not in the outer world but only in the inner. The time spoken of by science, on an analogy to space, is divided and measured in equal moments, but that which we experience is an ever-changing continuum. Furthermore, it must be apprehended through intuition and not simply by intellect. The work we have selected for the exhibition *Matière et mémoire* (1896) is directed, among other things, towards solving the mind-body problem. For Bergson the brain is not just a place where thoughts occur, but rather an organ which when stimulated initiates adaptive behaviour. *Matter and Memory* investigates the function of the brain through an analysis of perception and memory. The organic is distinguished from the inorganic in that it retains the past in its present. Unusually, Bergson argues that the brain filters rather than retains that past, helping us to forget what is not useful to action. Memories are actualized through being embodied in perceptions, which are directed by our needs and intentions. In his most famous work *L'Évolution créatrice* (1907) Bergson argued, against

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both Lamarck and Darwin, that evolution was driven by an *élan vital* or creative urge that enables life to overcome the entropy, or decline into disorder, natural to matter.

- Edmund Husserl's (1859-1938) early interests were in mathematics and science. He studied these subjects at Leipzig, Berlin, and Vienna, from which he received his doctorate in 1883. In 1884, he began the study of philosophy in Vienna with Brentano, and then with Carl Stumpf (1848-1936) at Halle. It was there that Husserl began teaching, before moving to Göttingen, and eventually to Freiburg in 1916. Husserl's first work was on the concept of number and was incorporated in a work on arithmetic that he published in 1891. In this early work, he tried to base mathematics on psychology. However, during the 1890s he turned away from this approach, developing his phenomenology, which he first presented in *Logische Untersuchungen* (1900, 1901). In the first decade of the 1900s, however, Husserl took a 'transcendental turn', developing a new form of phenomenology that is
- 60 incorporated in *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie* (1913). *Ideas for a Pure Phenomenology* is the most systematic presentation of his thesis that phenomenological method can give us a pure and revelatory description of the content of consciousness. Following his teacher Brentano, Husserl gives intentionality a central role: all consciousness is consciousness of something. It is not just directed towards an object, but 'brings it about' that there are objects—the object *constitutes* itself in consciousness. Husserl did not deny the underlying facticity of the real world, but thought that phenomenology was the only way to clarify the sense of the world.
- 61 *Méditations cartésiennes* (1931) first appeared in this French translation, and was not published in German until 1950. It was based on lectures that Husserl gave in 1929 at the Sorbonne, and constitutes his fullest treatment of the problem of intersubjectivity, that is how one transcendental ego constitutes other egos in an intersubjective community. We have included this particular book as a welcome illustration of the friendly contact between leading philosophers in the Continental and analytic camps between the Wars—the exhibited



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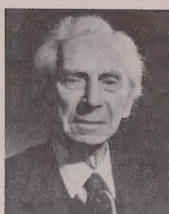
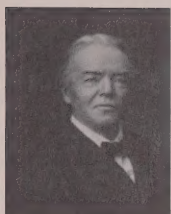
copy has Husserl's presentation inscription on the cover to a leading British analytic philosopher, G. E. Moore. While Moore was one of the three originators of analytic philosophy, Husserl, through his teaching and writing, originated the principal continental movement, phenomenology.

Martin Heidegger (1889-1976) was Husserl's colleague at Freiburg from 1916 to 1923 and initially was much influenced by him. His most important work *Sein und Zeit* (1927) is dedicated to Husserl, who edited the *Jahrbuch für Phänomenologie und phänomenologische Forschung* in which *Being and Time* was originally published. This work helped bring Heidegger the professorship at the University of Freiburg in 1928 in succession to Husserl, who recommended him unaware that Heidegger was privately criticizing his master at the time. Indeed by the time of Heidegger's notorious Freiburg rectoral address of 1933 he had tried to disassociate himself from his Jewish teacher. The exhibited copy is from a special edition published at the same time as the *Jahrbuch* edition. In *Being and Time* Heidegger asserts that what there is, Being, can only be understood through an analysis of human being or *Dasein*—literally being there or being-in-the-world—because only here do we find consciousness or awareness of being. *Dasein* is characterized by our conscious relationship both to surrounding objects and to others, seen not just as objects but rather as fellow members of a community. What appealed to existentialists was Heidegger's emphasis that our being—what we become—depends on the choices we make in the situations that we find ourselves. Inauthentic being arises from a life that is not self-determining—a life characterized by social convention and superficiality. Our awareness of being is always in time

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and thus finite. Heidegger believed that the terminology of traditional metaphysics led to misunderstanding and for this and perhaps other reasons he used many neologisms and employed an obscure style which often makes his meaning elusive to even the sympathetic reader. Notwithstanding this, *Being and Time* may well be the most influential twentieth-century work of philosophy, although a good many regard that influence as far from salutary. It is a primary source not only for phenomenology but also for existentialism, although Heidegger did not accept the latter label. Much of the last century's philosophy, theology, and critical theory are directly indebted to it. Heidegger was an extremely prolific author and lecturer, whose ideas evolved substantially after the writing of *Being and Time*—the collected edition of his works now being published will run to over 100 volumes.

The existentialist Jean-Paul Sartre (1905-80) was also a highly successful playwright and novelist. Like Bergson he studied at the École Normale Supérieure, at which time he began his lifelong relationship with the novelist and philosopher Simone de Beauvoir who was studying philosophy at the Sorbonne. After graduation in 1929 he served in the army, taught philosophy, and then did research in Berlin and Freiburg from 1933 to 1935, where he read, among others, Husserl and Heidegger. In the late 1930s he began his brilliant literary career with the novel *La Nausée* (1938) and philosophical studies on the emotions (1939) and imagination (1940). When the Second World War began Sartre was called up and quickly captured by the Germans, but he was released after the June 1940 armistice and returned to Paris, where he taught philosophy and was active in the resistance. His political engagement continued all his life and he remained an inspiration for many a street demonstration until near its end. Sartre's greatest philosophical work *L'Être et la néant* appeared in the summer of 1943, but it was little recognized until 1945. As a result, first editions are now quite scarce. At its core, *Being and Nothingness* is about freedom and responsibility. For Sartre there is no providential God who directs, condemns, or rewards. Instead we are all condemned to a freedom in which we must determine the meaning of our lives by our actions.



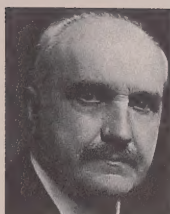
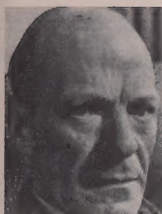
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Sartre distinguishes two kinds of being: being-in-itself and being-for-itself. The first is the being of inert objects, mere things. The second is human-being or consciousness, which is not-a-thing(ness), and which is open to the future rather than being determinate. Consciousness reveals an absolute freedom. While we always find ourselves in a given situation, we have the ability to transcend this facticity through imagination and by taking responsibility through making choices. To fail to do so is to live in 'bad faith'. Much of Sartre's later philosophical writing is incorporated in his novels, plays, and criticism although he did write a major work of political philosophy in the *Critique de la raison dialectique* (1960) that attempts to reconcile the determinism of Marxism and the freedom of existentialism. *Being and Nothingness*, however, remains the seminal work that triggered popular interest in one of the most influential philosophical movements of our era, although one that had lost virtually all its steam by the 1980s.

Maurice Merleau-Ponty (1908-61) was another graduate of the École Normale Supérieure where he attended Husserl's 1929 lectures (the *Cartesian Meditations*) and studied his and Heidegger's writings. During the Occupation and after the War he taught in Paris and Lyon, eventually assuming the Chair in Philosophy at the Collège de France in 1952, at which time he was the youngest person ever to have been elected to the chair. He died from a stroke at the age of 53, apparently while preparing a class on Descartes. His dissertation, completed in 1938, became his first book *The Structure of Behavior* (1942), a critique of behaviorist psychology. It was followed by his most important work: *Phénoménologie de la perception* (1945). The *Phenomenology of Perception* has a broader intent and scope than its title would suggest. 64

Merleau-Ponty's goal was to develop a theory of knowledge, built upon a study of the phenomenology of perceptual experience that did not privilege either mind or body, thus avoiding either monistic theories, such as idealism and materialism, or the dualism of such as Descartes. Our encounter with the world, according to Merleau-Ponty, is not at its root conceptual but rather perceptual. Giving primacy to perception, he maintained that consciousness, even of ourselves, contra Descartes, let alone others, must involve bodies. However, the body is conceived here not in the manner of natural science but as the phenomenal body, it is that by which there are objects. While sense data theories of perception presuppose a distinction between subject and object, our perceptual relation to the world is, in fact, logically prior to any distinction between subject and object and involves essential reference to the world outside of consciousness. The 'world' is not just the totality of objects, however, but rather the phenomenal field anterior to our experience. Knowledge is rooted in the life of our body which is also a knowing subject. Perceptions are not passive, but involve our committing ourselves to a particular view of the world—we are engaged existentially. The subject and the object are prior structural features of our being-in-the-world. Finally, Merleau-Ponty rejects Sartre's position that we are condemned to be free, arguing instead that we are condemned to meaning, many of the features of which are not free but are given to us by language, social structures, and other aspects of the life-world, which notion he drew from the *Lebenswelt* of Husserl.

In the 1960s interest in phenomenological method continued on the Continent, but philosophy was also greatly stimulated by the work of two thinkers who came from outside the field. Ferdinand de Saussure (1857-1913) was a Swiss linguist, whose ideas became the foundation of an approach called structuralism, that emphasized not the diachronic, that is across time, characterization of things, but their synchronic description. His *Cours de linguistique générale* (1916) was published posthumously and had a great influence on the anthropologist Claude Lévi-Strauss (1908- ) who developed structuralism as a method of understanding cultures in works such as *Anthropologie struc-*



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*ture* (1958) and *Mythologiques I-IV* (1964-71).

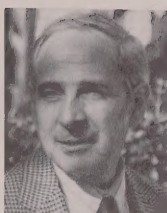
These varied forces combined with and were stimulated by political theories derived from a study of Hegel and Marx and a deep interest in Freudian psychoanalytic theory to yield a number of philosophical schools which blossomed after the Second World War and into the 1990s, such as the critical social theories of Max Horkheimer (1895-1973) and Theodor Adorno (1903-69), the liberalized Marxism of Georg Lukács (1885-1971) and Herbert Marcuse, the hermeneutics of Hans-Georg Gadamer (1900-2002) and Paul Ricoeur (1913-2005), the deconstructionism of Jacques Derrida (1930-2004), the communication theory of Jürgen Habermas (1929- ), and the various approaches to philosophy associated with Michel Foucault (1926-84).

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## POLITICAL PHILOSOPHY

Bernard Bosanquet (1848-1923), Oxford educated and later a professor at St. Andrews, was one of the twin-pillars of British absolute idealism. His philosophy reflects the influence of Kant and especially Hegel, to whom he was introduced at Balliol College by T. H. Green (1836-1882). After receiving a first in *literae humaniores*, Bosanquet was elected to a fellowship at University College, but having received a modest inheritance in 1880 he gave up teaching and moved to London to assume a career as a writer and social activist. A prolific author and exceptionally systematic thinker, Bosanquet wrote on a wide range of subjects. Central to all his works, however, is the belief that all experience forms a comprehensive whole—the Absolute—which is reality. Human lives normally fall far short of this, made up as they are of contradictory experiences; however, they can acquire value as they more fully participate in the Absolute, where all contradiction has been overcome. This can only be done in communities, which is the subject of

65 *The Philosophical Theory of the State* (1899). This book originated in a series of lectures at the London School of Ethics and Social Philosophy, of which Bosanquet was a founding member. He conceived of social philosophy as the point of convergence between metaphysics and practical social activity. Building on Rousseau's notion of the 'general will', he argued that the State was an organism to attain one's development and thus true freedom. Bosanquet criticized what he saw as an overemphasis on individualism in classical liberalism, maintaining that it was only within institutions such as the State that the individual could achieve fulfilment. Indeed the common self is more *real* than the individual, as the State embodies our shared aspirations and understandings. Some consider this to be Bosanquet's work of most lasting value.



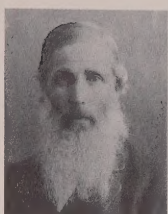
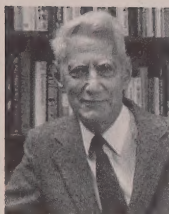
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It was sharply criticized, however, by those defending more liberal ideals. For instance, in *The Metaphysical Theory of the State: A Criticism* (1918) L. T. Hobhouse (1864-1929) argued that Bosanquet's views amounted to nothing more than a defense of the status quo in society—warmed-over Hegelianism. As Hobhouse also believed that the First World War was the direct outgrowth of Hegel's ideas, it is not surprising that he reacted with great hostility.

Hegel did have his defenders. In the 1960s youth throughout the western world engaged in a cultural revolution. In the United States that revolution was stimulated by the residue of racism in American society, by the Vietnam War, and by changing sexual mores. Many of the values and some of the heroes of their parents were rejected. Youth looked for guidance elsewhere. They found such a guide in San Diego, California, in the person of Herbert Marcuse (1898-1979), until then a figure unheard of except in leftist academic circles. Marcuse was born in Berlin and during the First World War he became committed to radical politics. He received his Ph.D. in 1922 from Freiburg and then worked as a bookseller before *habilitating* at Freiburg in 1929. With the rise of Hitler he fled and in 1934 came to the U.S., first teaching at Columbia and then Brandeis, before he moved to the University of California, San Diego in 1965. The year before his *One Dimensional Man* had appeared. Its unmasking of the shallowness and control-techniques of a one-dimensional technological civilization spoke loudly to the youth of that time. I was one of them. Notions such as 'alienation' and the 'unhappy consciousness' became the talk of the day and we rushed to buy and read *Eros and Civilization* (1955) in which he offered us a more integrated vision of life's potential built upon the ideas of

Freud and Marx. However, Marcuse's ideas were based not just on psychoanalytic theory and a perceptive critique of the power of the modern corporation, they also reflected his deep reading of the primary philosophical source for Marxism. Earlier he had published, 66 *Reason and Revolution: Hegel and the Rise of Social Theory* (1941). Written while Marcuse was a member of the Institute for Social Research at Columbia, this work seeks not only to explicate Hegel's dialectics of Spirit, but also to show its concrete connection with Marx's inversion of Hegel's central idea to develop his own dialectics of society. He also defends Hegel from the charge that he was a precursor of fascism, endorsing the comment that on the day that Hitler came to power 'Hegel, so to speak, died.'

67 In sharp contrast, Friedrich Hayek (1899-1992) was a defender of nineteenth-century liberalism who devoted much of his work to defending against the inroads of collectivist social ideas in such works as *The Road to Serfdom* (1944) and *The Constitution of Liberty* (1960). Hayek was born and largely educated in Vienna, achieving doctorates in both jurisprudence (1921) and political science (1923), after which he continued an intensive study of economics, notably under Ludwig von Mises. Hayek then worked and taught in Vienna before moving to the London School of Economics in 1931, where he was Tooke Professor of Economic Science from 1932-49. From 1950-62 he held the Chair of Moral and Social Science at the Committee for Social Thought at the University of Chicago. After which he returned to Europe, where he was Professor of Economic Policy at Freiburg until his retirement in 1967. Written in a 'popular style' and with great brevity *The Road to Serfdom* disappointed academics, particularly those committed to socialism, but it quickly became a much argued-about bestseller. Although this first edition was printed in just 2,000 copies, within six months 30,000 copies had been sold and it remains a bestseller today. Hayek's 'tract for the times' argued that the large-scale social engineering implicit in the socialist agenda that he saw emerging in Britain is based upon unrealizable epistemological assumptions—for instance, that governments have the ability to discern personal preferences



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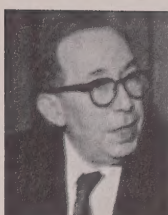
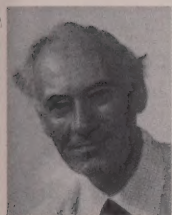
and/or needs and to properly and efficiently allocate resources towards their attainment. The result of their inability to do so is the sacrifice of individual liberties, with no net improvement in social wellbeing. Indeed, history had shown that such *hubris* could lead to totalitarianism. *The Road to Serfdom*, which Hayek dedicated 'To the Socialists of All Parties', has appeared in nearly twenty translations. There were also several underground editions behind the Iron Curtain that contributed to the eventual downfall of communist regimes.

Another prominent opponent of collectivism was Karl Popper, whose *The Open Society and Its Enemies* was published in two volumes in 1945, the first volume being devoted mainly to Plato and the second to Marx and his forerunner Hegel. Popper maintained that humanity has struggled to move from closed, tribal societies, where there is just one view of the world and one set of values, towards open societies where a diversity of views are tolerated and where there is more than one basic way of life. It is only in open societies that criticism can fully operate, thus encouraging growth of knowledge with its many benefits to humankind. Popper argues in volume one, *The Spell of Plato*, that Plato betrayed the critical spirit of his teacher Socrates, who was convinced that only by admitting our ignorance could we acquire knowledge, and advocated instead in the *Republic* a closed and static society led by philosopher-kings who fully direct the lives of others, as they alone have true knowledge of reality—the Forms. In the society that they direct, there is no need for change because it is already based upon their knowledge of ideal Forms of order, justice and the Good—indeed, change would only corrupt society. A soldier class of 'guardians' would assist the philosopher-kings, by ensuring that the

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rest of society followed their dictates. Popper's second volume, *The High Tide of Prophecy: Hegel, Marx, and the Aftermath*, developed similar themes. He noted, however, that Hegel and Marx, in contrast to Plato, were essentially optimistic, seeing change and development as progressively leading to an ideal society. In Hegel's case it was the development of Spirit, in Marx it is the development of the material processes of economic production. These latter determine other aspects of society, such as culture and politics. Although Popper has much to say in praise of Marx, in particular regarding his humanitarianism and intellectual seriousness, he finds that his central historicist thesis has been clearly falsified by actual developments in societies. Unfortunately, he argues, belief in it stifled political and other freedoms at great cost. Popper explored these themes more deeply in *The Poverty of Historicism* (1957), a work based on journal articles published in the mid-1940s.

69 Hannah Arendt (1906-75) was born in Hanover, Germany. She studied at Marburg where she attended Heidegger's lectures (and had a passionate love affair with him), before moving to Heidelberg where she wrote her doctoral thesis with Karl Jaspers in 1929. In 1933, she was arrested by the Gestapo, but escaped to Paris where she worked with Jewish organizations. She was briefly interned in France but escaped again and left in 1941 for New York where she worked as a journalist, editor, and director of another Jewish organization. From 1951 she held a series of visiting positions at several distinguished universities. It was during the early years in New York that Arendt wrote her first book, *The Origins of Totalitarianism* (1951). Published in the shadow of World War II and as the Cold War gathered intensity, she uses historical and philosophical arguments in contending that the rise of tyrants such as Hitler and Stalin could be traced to the racist ideologies of late nineteenth-century anti-Semitism and to imperialism. Totalitarianism was able to take root in societies where terror replaced participatory political institutions. The concentration camps of totalitarian regimes made real our worst dreams of hell. Arendt continued her exploration of the darker themes at the interface of morality and political life in works such as *The Human Condition* (1958), *On Revolution* (1963),



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*Eichmann in Jerusalem* (1963), and *On Violence* (1970). Much of her work deals with the source, use, and effects of power, in particular its impact on political freedom.

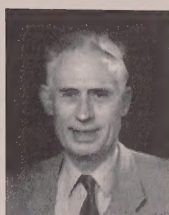
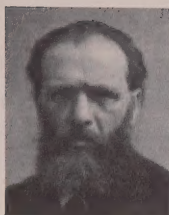
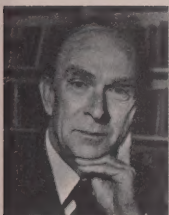
Little work was done in political philosophy in the youthful decades of analytic philosophy—indeed, the question was asked: ‘Is the pursuit of political philosophy dead?’ It was true that certain members of the Vienna Circle of logical positivists were active politically, for instance, the prominent socialist Otto Neurath, but political activity seemed to resist the techniques of analysis in a way that science did not. However, in the years after the Second World War this changed. Philosophers came to see that the leading concepts and language used in political discourse were fruitful areas for analysis and, indeed, that politics itself might yet yield to analysis. Evidence of this new enthusiasm was given with the publication in 1956 of Peter Laslett’s widely-read anthology *Philosophy, Politics and Society*, which leads off with Michael Oakeshott’s 1951 inaugural lecture ‘Political Education’.

One of the most influential examples of the revived interest in political philosophy among analytically-trained philosophers was Isaiah Berlin’s (1909-97) inaugural lecture, ‘**Two Concepts of Liberty**’ (1958). Berlin was a native of Latvia who had come to England at the time of the Russian Revolution. A brilliant student he obtained a double-first at Oxford in ‘Greats’ and then PPE (Philosophy, Politics, and Economics). By 1932 he had been elected to a prestigious research fellowship at All Souls College. Berlin initially established his reputation as a leading exponent of the analysis of linguistic usage to elicit answers to logical and epistemological questions. While doing so, however, he did accept a commission from the Home University

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Library to write *Karl Marx: His Life and Environment* (1939), a subject that he said he knew nothing about when the offer was made in 1933. Berlin left Oxford in 1940 for wartime work and when he returned in 1946 he was disinclined to take up where he had left off, feeling that he had no real talent for philosophy. As well, he had lost interest in the topics being discussed. Instead, he turned his talents to the history of ideas where he produced a steady stream of stunningly insightful studies of leading figures of European intellectual and political history. In 1957 he was both knighted and appointed Chichele Professor of Social and Political Theory. In his inaugural lecture he distinguished between negative and positive liberty. Negative liberty is freedom *from*, from external constraints or obstacles. Its opposite would be imprisonment. Positive liberty is freedom *to*, that is, to do something. Positive liberty is the liberty of opportunity—being able to do something. It is also the liberty of doing something in a self-determined way, as opposed to being directed by others to do it. Berlin praised both types, but saw grave danger in the distortion of positive liberty by regimes that used the concept to justify oppression or violence in the name of liberation: for instance, when the attainment of a desired end by such means is confused with true liberty. He also argued that a notion such as the ‘general will’—what we would want if we only knew what was good for us—cannot substitute for free engagement of the individual self in achieving true liberty.

71 H.L.A. Hart (1907-92) applied the techniques of analytic philosophy to the philosophy of law. A student at New College, Oxford, he obtained a brilliant first in ‘Greats’ in 1929 before beginning a career as a barrister, practicing at the Chancery Bar from 1932-40. During the War he worked in counter-intelligence for the Security Service (MI5). In 1945 he became a tutor in philosophy at Oxford and in 1952 was elected Professor of Jurisprudence. The *Concept of Law* (1961) is based on Hart’s lectures, and in it he employs the careful techniques of linguistic philosophy to clarify legal concepts. The result is a remarkably lucid introduction to jurisprudence. Hart argues for legal positivism, which is the view that law does not have some higher standard



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outside of the law itself. The law is a system of recognized social rules—it is made by human beings, sometimes well, sometimes poorly. There is no necessary connection with morality or justice that makes it law, although some laws may well be more just than others. Rights arise within that framework; for instance, laws impose restrictions on others who may wish to curtail my freedom. Herbert Hart's other principal work is *Causation in the Law* (1959), written with A.M. 'Tony' Honoré (1921-). He also wrote extensively on punishment and on Jeremy Bentham, whom he considered the most important modern legal philosopher.

Ronald Dworkin (1931- ) earned his B.A. at Harvard in 1953, then graduate degrees at Oxford and Harvard. He practised law until 1962, after which he taught law at Yale. In 1968 he succeeded Hart as Professor of Jurisprudence at Oxford, a position Dworkin held until 1998. He is now Professor of Jurisprudence at University College, London and New York University. Dworkin is one of Hart's severest critics, rejecting his legal positivism in such books as *Taking Rights Seriously* (1977) and *Law's Empire* (1986). He argues in the first that legal positivism is wrong in its view that individuals only have rights that are created by law or explicit social practice. In contrast, Dworkin maintains rights preexist their enshrinement in law.

When John Rawls's *A Theory of Justice* was published in 1971 it argued that any just system of distribution would be one that benefited the least well off. It would almost certainly be egalitarian. His colleague Robert Nozick's *Anarchy, State and Utopia* (1974) radically challenged that view, arguing instead that a system was just even if it did not result in an equal distribution of goods, provided that the exchanges of goods

among individuals were freely entered into. Nozick (1938-2002) was educated at Columbia and Princeton, where he earned his Ph.D in 1963. His exceptional talent was recognized early, and he advanced from assistant to full professor at Harvard by the time he was thirty. He remained there for the balance of his life, occupying a distinguished chair in philosophy before being made a University Professor in 1998. He died four years later of stomach cancer. He is the author of five books and many papers, but it is *Anarchy, State and Utopia*, his first, for which he may well be most remembered. While Rawls' gives a philosophical justification for a welfare state, Nozick argues for a minimal state, one sufficient only to protect against violence and to ensure the enforcement of contracts. Anything more would threaten individual liberties, which are fundamental to morality. Although widely attacked within and without academia, the acuteness of his arguments and attractive writing style were hard to deny, and Nozick's book won the National Book Award and was named by the *Times Literary Supplement* as one of 'The Hundred Most Influential Books Since the War.'

Here as elsewhere, limited display space makes it impossible to include all those who did noteworthy work during our period. For example, Antonio Gramsci (1891-1937), Michael Oakeshott (1901-90), Leo Strauss (1899-1973), Eric Voegelin (1901-85), and other members of the Frankfurt School besides Marcuse all made significant contributions to political philosophy.

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## HISTORY OF PHILOSOPHY & PHILOSOPHY OF HISTORY

Philosophy has always engaged with its past. Aristotle began several of his treatises by discussing and criticizing the views of his predecessors. Medieval philosophers struggled to find ways to make Christian theology compatible with Aristotle. Descartes and his contemporaries sought to demonstrate what was wrong with Aristotle and argued that medieval thinking was nearly bankrupt. Kant's mission was to reconcile the conclusions of both rationalists, like Descartes, and the empiricists who opposed them and to replace their conflicting views with his Copernican revolution in philosophical method. In turn his descendants, such as Hegel and Schopenhauer, by and large used Kant's work as a mere starting point in developing their own ideas.

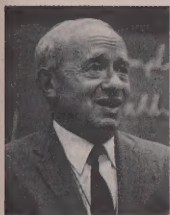
In addition to formulating their own philosophies through critique or development of their predecessors, some philosophers have believed that doing so requires a solid understanding of earlier thought. Such understanding requires good texts, as well as an appreciation of the cultural and intellectual context in which those texts were written. Interpreting them correctly, as opposed to merely using them as a philosophical foil, requires that the interpreter be able to reach into the mind of the earlier philosopher to discern intent and meaning. During the post-1870 period and in particular in recent decades, scholarship in the history of philosophy has flourished. We have selected a few influential examples of that work.

As well as taking an active interest in its own history, philosophers have had a growing interest in the philosophy of history generally. A few products of that interest are also exhibited.

Texts and translations are critical to philosophical scholarship. For instance, there have been many editions and translations of Plato and

73 Aristotle over the years. One of the most influential has been *The Dialogues of Plato* (1871) translated and introduced by Benjamin Jowett (1817-93). Its great success led to expanded and revised editions in 1875 and 1892 and 'Jowett's Plato' became a standard tag. Jowett came from a family of modest means, but his gift for languages led to scholarships at St. Paul's School, London and then at Balliol College, Oxford, of which College he ultimately became Master. After winning many prizes he was made a College fellow while still an undergraduate, a tutor in 1842, and Master in 1870. In 1855 Lord Palmerston appointed him Regius Professor of Greek in the University and his first lectures were on Plato's *Republic*. Prior to 1860, Jowett was much involved in theological debate, where his liberal views and, in particular, a radical commentary on the epistles of St. Paul brought down upon his head the opprobrium of the more conservative religious establishment of the University. After that year, he determined to concentrate on classical studies and teaching and to abandon public theological debate. As a tutor, lecturer, writer, College preacher, and especially as Master of Balliol, Jowett educated and promoted two generations of students to positions of leadership in academia, the church, and government. For instance, three successive viceroys of India were his pupils. He was himself much influenced by his study of German philosophers, particularly Hegel, and this interest is reflected in both his theological and philosophical writing. However, it is Plato, and the Socrates of whom Plato writes, who are most influential in Jowett's effort to reconnect ethics with public life, a link that he believed utilitarian and materialist philosophies had somewhat severed.

There are many works by Ernst Cassirer (1874-1945), historical and otherwise, that might have been included in this exhibition. He had exceptional range as an original philosopher and intellectual historian. Born in what is now Wroclaw, Poland, Cassirer was educated at various German universities but was most influenced by the neo-Kantian Hermann Cohen (1842-1918) at Marburg. His work also shows the impact of lifelong study of Goethe. A Jew, Cassirer had difficulty estab-



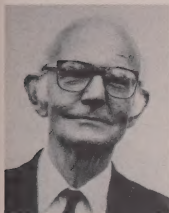
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lishing an academic career, in spite of his early and brilliant publishing record, and it was only in 1919 that he was appointed to a professorship at Hamburg. The rise of Hitler led to a life of academic wandering and from 1933 Cassirer successively held positions at Oxford, Göteborg, Yale, and Columbia. Cassirer extended Kantian ideas as to what we bring to experience. Like Kant he believed that we use concepts to construct our world, but unlike Kant he stressed how these concepts develop, and he explored that development in our use of symbols. Indeed, human knowledge requires and human culture is a manifestation of our ability to create and use symbols. Today, Cassirer is chiefly read as a preeminent philosopher of culture, and his most acclaimed work is the multivolume *Philosophy of Symbolic Forms* (1923-29), which examines our use of symbols in a wide range of fields, from myth to science, to create culture. However, we have selected his *Die Philosophie der Aufklärung* (1932) for the exhibit. It is Cassirer's groundbreaking study of the principal intellectual movement of the eighteenth-century. He describes the Enlightenment as having a fundamental unity, in spite of its diverse manifestations in thought, science, religion, politics, art, and other fields. That unity was based on an understanding of reason as a force that not only comprehends but also shapes experience. In a powerful new way, the Enlightenment joined to reason the principle of critique, that is, that all must be tested in the light of reason—*sapere aude*, dare to be wise or to know. Thus enlightenment philosophy was not itself a special field of knowledge, but a stimulus to all fields of 'enlightened' thought and activity. In his own philosophical writing Cassirer tried to move beyond Kant's critique of reason towards a broader critique of culture.

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Many histories of philosophy have been written. The first we have is Diogenes Laërtius' *Lives and Opinions of the Philosophers*, which is thought to have been compiled sometime in the early third century. The first in English is Thomas Stanley's *History of Philosophy* (1655-60), which fourteen centuries later remains very dependent on Diogenes. We had to await Jakob Brucker's *Historia Critica Philosophiae* (1742-67) for something more scholarly. Subsequently, the floodgates opened and all manner of histories were written, or developed in lectures as for example by Hegel. Today the quantity of historical scholarship on past philosophers is so great and the tendency to specialize so accepted, that no single scholar would attempt to write a comprehensive history on a major scale. Therefore, it is worthwhile to recognize what may well be the last, Frederick Copleston's (1907-94) *A History of Philosophy* (1946-75). A Jesuit priest, Copleston's original purpose was to write, as he says in the Preface of the first volume: 'a complete history of philosophy' that would provide 'Catholic ecclesiastical seminaries with a work that should be somewhat more detailed and of wider scope than the textbooks commonly in use.' At the time, he thought he could do this in three volumes—ancient, medieval, modern—but it ended up taking nine. Despite his original limited purpose, Copleston's gift for comprehending and explaining difficult thinkers and his clear writing style made his history, which has subsequently gone into countless paperback printings, surely the biggest seller of any that has ever been written. Although he said at that time that he wrote from the 'standpoint of the scholastic philosopher'—that is, as a committed Catholic teacher—what is particularly noteworthy is his objectivity, treating philosophers with whom he undoubtedly disagreed with the same grace and fullness as those with whom he was more sympathetic.

76 Joseph Owens (1908-2005) was one of the greatest philosophical scholars to have graced the University of Toronto campus. Born in New Brunswick, he was ordained as a Redemptorist priest in 1933, after which he did parish work, before studying for his licentiate (1946) and then doctorate in medieval studies. His *The Doctrine of Being in the Aristotelian 'Metaphysics': A Study of the Greek Background of*



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*Mediaeval Thought* (1951) offers us a superb example of a historical study of the work of a single philosopher, in this case Aristotle's metaphysics. It is a humbling thought to any Ph.D. student that this incredibly thorough and insightful work was presented as a doctoral thesis to the Pontifical Institute of Mediaeval Studies. Edward Synan, later a colleague, in a festschrift for Owens summarized the atmosphere at the time:

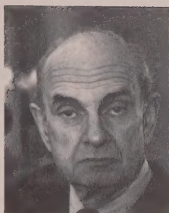
*Among the memories of graduate students from my time at the [Institute], none is more vivid than is that of the defence made by Joseph Owens...of his dissertation... His erudition had long been the object of awe-struck rumor on the campus; with that ceremony it ceased to be rumor and became attested fact. Owens faced a board of examiners calculated to strike awe in any student. To name only those who spoke that day for philosophy, Etienne Gilson and Anton C. Pegis were members of his jury. Awe, however, ran in the opposite direction. The formidable board voted Owens his doctorate summa cum laude and the world of learning has been confirming that judgement ever since.*

Owen's book demonstrated his lifelong commitment to the study of Greek philosophy not only for its own sake but also as a foundation for the medieval thought that drew upon it. Two generations of philosophy students and colleagues in Toronto and a wider-community outside the University greatly benefited from his scholarship and teaching.

John Passmore (1914-2004), like Copleston, was blessed with an exceptional ability to assimilate and then explain complex philosophical ideas. He was born in Sydney, Australia where he also received most of his education, and had a long teaching career at various

Australian universities, interspersed with many visiting appointments and guest lectures at universities in Britain and America. In addition to his famous history of contemporary philosophy, Passmore wrote well-received studies on individual philosophers and key philosophical problems. However, it is *A Hundred Years of Philosophy* (1957) for which he will be remembered. Indeed, in recognition of that we have adopted its title for this exhibition, although Passmore's book covers a slightly earlier period of philosophy, starting as it does with John Stuart Mill who died approximately when we begin. Perhaps no publisher's blurb could ever have been truer than that for the updated second edition (1966) that stated that Passmore had 'achieved a remarkable *tour de force* of compression and lucidity.' While it is true that he confined himself to epistemology, logic, and metaphysics, reading Passmore's history nonetheless leaves one feeling that he has just shared with you a fulsome and privileged account of the thought of the period covered. Readers repeatedly dipped into the book for review, and many urged Passmore to update the book again for a third edition. He tried to do so with another updating chapter but admitted that he 'dismally failed' as it 'grew and grew and yet still left me dissatisfied with its brevity.' The meticulous technical detail of recent philosophy just would not submit itself to his fluid summaries. As an admitted compromise, Passmore published *Recent Philosophers: a supplement to A Hundred Years of Philosophy* in 1985, but the selectiveness of this book made no pretence that it was a continuation of the full story.

Philosophers have not only taken an interest in the history of their subject, but they have also made the philosophy of history an important subject. In the nineteenth century, philosophy of history was still largely in the grip of Hegel, concerned with discerning whether there were meaningful patterns in the course of world history, an approach that can be traced at least as far back as Augustine's *City of God* (ca. 410). Here the point is to find intelligibility in historical events; in Augustine's case they manifest God's plan, in Hegel's each historical stage is a step in the development of human freedom. Although authors influenced by Hegel, such as Croce, discussed and, in some



WITTGENSTEIN  
WOLLHEIM  
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cases, added to such speculative philosophies of history in our period, most of their work shows limited originality. Where originality can be seen is in critical and analytic philosophy of history. Here the emphasis is not in finding a 'story' or 'meaning' within historical events, but rather in examining the very data, concepts, and methods used by historians. Of particular importance was the fact that positivist and empiricist theories of knowledge maintained that legitimate knowledge conformed to the model of natural science. 'The Function of General Laws in History', an article published in 1942 by a leading philosopher of science, Carl Hempel, maintains that explanation of historical events requires 'covering laws' as do physical events. Although defended by some empiricist philosophers, this thesis was immediately attacked by others who insisted that history was different, and who argued that while it was genuinely scientific, that is, it did yield knowledge, it did not do so on the model of the natural sciences.

R. G. Collingwood (1889-1943) was both a distinguished philosopher and an expert on the archaeology and history of Roman Britain. He received a somewhat unconventional though intense early education at home before entering Rugby School. Indeed, he said that he developed a keen interest in philosophy from reading Kant at eight. Be that as it may, he distinguished himself as a *literae humaniores* student at Oxford and was elected to a philosophy fellowship in 1912. Unusually, he held a university lectureship from 1927 in philosophy and Roman history. In 1935 he was appointed Waynflete Professor of Metaphysical Philosophy at Oxford, a position that he held until ill health forced his retirement in 1941. As a practising historian, it is not surprising that Collingwood wrote on historical methodology, and

78 *The Idea of History* (1946), although published after his early death, reflects lifelong interests. He asks: How is historical knowledge possible? History is based on rational principles and is an organized body of knowledge inferred from evidence of prior actions. However, to be known they must be reenacted by the historian and what can be reenacted or rethought are the thoughts of historical actors. In doing so, the historian seeks to discern from the evidence the reasons, that is, the thoughts of actors that led to their particular actions. However, to understand the thoughts of others we must understand our own thoughts, and thus for Collingwood history is also a form of self-knowledge.

79 Collingwood's ideas acted as a major stimulus to other philosophers. One of the first books to appear was *Introduction to the Philosophy of History* (1951) by W. H. Walsh (1913-86). Walsh, like Collingwood, believed historians' proper concern was with human thoughts and experiences. Consequently, historical explanation must be grounded on the intentions and motives of the agents who are responsible for or involved in events, not simply in relating the events successively. The key to historical explanation is giving *reasons* not simply *causes*. Walsh too received a first in 'Greats' from Oxford in 1936, and after the War he returned to Oxford in 1947 as a fellow and tutor. In 1960 he left to become Professor of Logic and Metaphysics at Edinburgh. Again like Collingwood, his work developed from within the idealist tradition. He is primarily known today as a distinguished commentator on Kant, as well as for his work in philosophy of history. Among the other topics discussed in this book are the nature of historical explanation, in what sense historical statements can be said to be 'true', and the problem of objectivity. This last arises from the fact that historians while looking at the same events often give widely differing accounts that clearly reflect biases they bring to the data with which they work. As a result, historical explanation appears inescapably interpretive, and cannot be strictly 'scientific' if that term is defined solely on the model of natural science.

The final book in this case is an early work by the distinguished

American philosopher and critic Arthur Danto (1924- ). Danto was educated at Wayne State and at Columbia, where he began teaching in 1951. Unusually, he has remained at Columbia his entire career and is now Johnsonian Professor Emeritus of Philosophy. Of course, residence in New York facilitated Danto's emergence as a leading art critic and aesthetic theorist (he studied art at Wayne State). Today Danto is most widely recognized for that work, as in his *The Transfiguration of the Commonplace* (1981) where he presents a major new theory of art. However, before this he had produced one of the most important works in the philosophy of history: *Analytical Philosophy of History* (1965). While similarly rejecting the grand explanatory schemes of speculative philosophies of history, Danto emphasizes its narrative character. In a preface to the book's second edition he wrote: 'My general point throughout the book was that narrative structures penetrate our consciousness of events parallel to those in which...theories penetrate observations in science.' Because there are alternative descriptions of events, historical narrative cannot become 'scientific', 'since it is human interests...which determine which events are important and under what sorts of descriptions.' Danto's book explores in detail the several ways in which historical explanation differentiates itself from scientific explanation and argues that it yields an autonomous form of knowledge.

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## APPENDIX

### Aesthetics & Philosophy of Religion

81 Aesthetics or as it is frequently called the Philosophy of Art enjoyed a renaissance in the post-1870 period. One manifestation of that was a renewed interest in its history. For example, Bernard Bosanquet wrote the first history of the subject in English, *A History of Aesthetic* (1892). Bosanquet had earlier translated *The Introduction to Hegel's Philosophy of Fine Art* in 1886, which included a lengthy explanatory introduction. For Bosanquet, as with Hegel, art not only represents but also has a deeper 'spiritual' significance, manifesting aspects of an aesthetic consciousness that reveals to us part of the underlying nature of Reality, which indeed, is mental or spiritual (in a non-religious sense). Also influenced by Hegelian idealism, Benedetto Croce (1866-1952) wrote several works on aesthetics, including *Estetica come scienza dell'espressione e linguistica generale* (1902), whose second part is again a history of the subject.

82 The philosopher, poet, and cultural sage, George Santayana (1863-1952) also took a deep interest in the subject. Of Spanish birth, although Harvard educated, Santayana became a distinguished member of Harvard's philosophy department before retiring in 1912 to a writer's life in Europe. His *The Sense of Beauty* (1896) became a classic and is noted for advocating the theory that we invest an aesthetic object with the beauty that we perceive in it. Collingwood devoted several works to aesthetics, most significantly *The Principles of Art* (1938), which drew insightful distinctions between art and other fields, such as magic and craft. He said that while producing art involves the technical skills of craftsmanship, it is characterized, in contrast, by imagination and emotional expression. *Art as Experience* (1934), John Dewey's major contribution to the field, is perhaps best known for its

argument that all genuine experience, that is complete and fulfilling experience, is aesthetic—the aesthetic is not limited to art but potentially reaches into all aspects of our lives. Another distinguished American aesthetician was Susanne K. Langer (1895-1985). Langer, who had studied at Radcliffe and Harvard but who only entered full-time academic teaching after years spent raising a family, fully developed her aesthetic ideas in *Feeling and Form* (1953). However, this book was based in large part on an earlier, path-breaking work *Philosophy in a New Key* (1942), which showed the influence of Cassirer and emphasized the role symbols, including those of art, play in our understanding of reality. Artistic form was, in particular, expressive of feeling. 83

While Langer sought to find an opening between what she saw as the errors of idealism and logical positivism, much work in aesthetics also showed the influence of other prominent schools of philosophical thought. For instance, Mikel Dufrenne (1910-1995) contributed to both existentialist and phenomenological thought. He is now best known for the two-volume treatise *Phénoménologie de l'expérience esthétique* (1953). Initially, analytic philosophers showed little interest in aesthetics, but this changed markedly in the second half of the century. Two prominent and influential examples are works by Nelson Goodman (1906-88) and Richard Wollheim (1923-2003), a long-time professor at University College, London. Wollheim's *Art and its Objects* (1968) was just one of several books in which he discussed either objects of art or the creation and experience of art, in particular, exploring the nature of the representational properties of art and our capacity to 'see' features of the work. In that same year, Goodman, whose varied career included not only years as a professor of philosophy but a lengthy stint as a professional art dealer, published *Languages of Art*, which extended his path-breaking work in epistemology and ontology into art. He too was interested in the relationship between symbol and object, particularly how meaning is bestowed upon the latter by the semantic and syntactic features of the former. 84 85

Much work in Philosophy of Religion during the early decades of our period was prompted by the personal anxieties of philosophers.

These arose, in large part, because the challenge that science seemed to pose to traditional religious belief and were heightened, for instance, by the publication in 1859 of Darwin's *On the Origin of Species*. Even among those philosophers who were ready to lay aside their traditional theistic beliefs in order to maintain a consistent epistemological outlook, there were frequently attempts to retain a 'spiritual' element in their life or their view of the world. One sees this in both British and American idealist philosophies of the time. However, some philosophers were more reluctant to concede a need to abandon their beliefs. For instance, William James famously argued in his essay 'The Will to Believe' (1896) that we are entitled on moral and prudential grounds to believe in God even in the face of insufficient evidence. His life-long interest in religion, however, was most extensively treated in his 86 Gifford Lectures of 1901-1902, which were published as *The Varieties of Religious Experience*, a book that has never ceased to be a philosophical bestseller. James both describes and defends religious experience, arguing, among other things, that personal experience can yield knowledge of the divine. Religious themes were also central to the philosophy of his friend Josiah Royce, whose idealism long contested with James's pragmatism at Harvard. Religious questions are important in much of his work, for example, in *The Religious Aspect of Philosophy* (1885), *The Conception of God* (1897), and *The Problem of Christianity* (1913). In these and other works Royce defended the idea that we all belong to a spiritual, interpretive community.

Soon, however, the growing school of analytical philosophers turned their powerful techniques with devastating effect to religious arguments, particularly the traditional arguments for the belief in God and the epistemological status of religious beliefs and language. Bertrand Russell, for example, had great polemical success in 1927 with his published lecture 'Why I Am Not A Christian.' After the Second World War, as young analytic philosophers returned to their posts, religious belief once again became a topic of lively debate. 87 *New Essays in Philosophical Theology* (1955), a seminal collection of articles by British Commonwealth authors, stimulated a renewed, though largely

critical interest in the subject. One of the two editors of that volume, Antony Flew (1923- ) published *God & Philosophy* in 1966. In it he sought to defend (against Barth) the legitimacy of argument regarding religious belief, and to examine the strongest possible case for Christian theism, which he ultimately finds wanting on Humean and other grounds. In recent years, some evangelical Christians have celebrated Flew's recantation of his militant atheism. That he has done so is something he, possibly, and others have denied. 88

In response to such attacks on traditional religious belief, a distinguished group of analytical philosophers later emerged as defenders of traditional religion. Alvin Plantinga (1932- ), still perhaps the leading analytical theist, wrote *God and Other Minds: A Study of the Rational Justification of Belief in God* (1967), which applied the techniques of close logical analysis to the traditional arguments, and which also introduced an intriguing new argument that concluded that we had as good grounds and as much right to believe in God's existence as we had to believe in the existence of other minds than our own. Peter Geach (1916- ), a brilliant philosophical logician who had converted to Catholicism while studying at Oxford, wrote several books wherein traditional beliefs are either described sympathetically or defended. In the first, *God and the Soul* (1969), Geach wields his formidable logical tools in defense of several traditional doctrines such as the resurrection of our bodies and the efficacy of petitionary prayer. Perhaps no British philosopher is more associated with the 'analytical' defense of theism than Richard Swinburne (1934- ) who first established his reputation with work in philosophy of science and probability theory. In a still expanding series of books beginning with *The Coherence of Theism* (1977), Swinburne defends the coherence of religious beliefs and language, presents a new probabilistic argument for *The Existence of God* (1979), and argues for traditional Christian doctrines such as the Trinity and the Incarnation. The debate continues. 89 90 91

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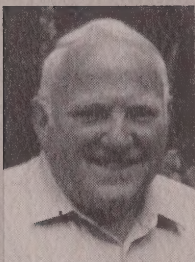












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